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Commonwealth of the Northern Mariana Islands Office of the Governor

Division of Environmental Quality Dr. Torres Hospital Saipan, Mariana Islands 96930

Cable Address: Gov. AMI Saipan

PUBLIC NOTICE

PROPOSED DRINKING WATER REGULATIONS FOR PUBLIC LAW 1-8 DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENTAL SERVICES

The Director of the Department of Public Health and Environmental Services of the Commonwealth of the Northern Mariana Islands is proposing to promulgate new regulations for the provision and protection of potable drinking water supplies in the Commonwealth. These regulations will be used in conjunction with Public Law 1-8.

The purpose of these regulations and technical provisions and specifications is to establish certain minimum standards and requirements as determined by the Department to be necessary for the public health and safety and to insure that public water supply systems are protected against contamination and pollution and do not constitute a health hazard.

The proposed regulations include the following subject areas:

- 1. General provisions which describe the authority and scope.
- 2. The purpose of the regulations.
- 3. Siting and design requirements for new sources.
- 4. Operation, maintenance, and monitoring requirements which set the sampling procedure and maximum contaminant levels.
- 5. A variance and exemption procedure for those systems that are unable to meet the maximum contaminant levels.
- 6. Enforcement procedures.

Copies of the proposed regulations may be obtained from the Department of Public Health and Environmental Services, Division of Environmental Quality, Dr. Torres Hospital, Saipan, CM 96950.

Anyone interested in commenting on the proposed Drinking Water Regulations may do so by submitting comments in writing to the Director, Department of Public, Health and Environmental Services, Dr. Torres Hospital, Saipan, CM 96950, within thirty (30) days from the date this notice is published in the Commonwealth Register.

DATED:

JOSE 27. VILLAGOMEZ

Director, Public Health and Environmental Services

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Commonwealth of the Northern Mariana Islands

Office of the Governor

Division of Environmental Quality Dr. Corres Bospital Saipan, Mariana Islands 96950

Cable Address: Gov. NAII Saipan

NOTISIA PUBLIKO

MAPROPOSA NA REGULASION HANOM MAGIMEN PARA I LAI PUBLIKO 1-8 GINEN I DEPATTAMENTON HINEMLO' PUBLIKO YAN SETBISION ENVIRONMENTAL

I Direktot i Depattamenton Hinemlo' Publiko yan Setbisio <u>Environmental</u> gi Commonwealth i Sankatan na Islas Marianas ha propoposa na umanaguaha un nuebo na regulasion pot para umanaguaha yan umaprotehe i hanom para magimen gi Commonwealth. Este na regulasion para umausa como patte gi Lai Publiko 1-8.

I propositon este na regulasion yan i probision teknikat yan espisifikasion es desit pot para umestablese i <u>minimum</u> <u>standard</u> yan i <u>requirements</u> segun i madetetmina nu i Depattamento como presiso para proteksion i hinemlo publiko yan para uprotehe kontra inaplacha yan kontaminasion yan ti peligro para i hinemlo publiko.

I mapropoposa na regulasion ha na sasaunao i sigiente siha na asunto:

- 1. Probision henerat ni ha esplilika i autoridad yan i scope.
- 2. Propositon i regulasion.
- 3. I lugat yan i man presiso na design para i nuebo siha na source (supply).
- 4. I man presiso na modon operasion, ma-aregla, yan rekonosimento ni para uinaregla i modon sampling yan i maksimo na atturan contaminant.
- 5. I otro siha na manera yan i manasuhan i <u>procedure</u> para ayu siha na sistema ni tisina madalalake i mas propio yan kantida na asunton inaplacha.
- 6. Modon enforcement.

Kuatkiet petsona na malagu' kopian i mapropoposa na regulasion sina manule kopia gi Depattamenton Hinemlo Publiko yan Setbision <u>Environmental</u>, Dibision i Kualidad Environmental, Dr. Torres Hospital, Saipan, CM 96950.

Kuatkiet petsona na malagu' haespresa opinion-na pot i mapropoposa na Regulasion Hanom Magimen makombibida na utugi' i opinion-na ya usumite guato gi Direktot i Depattamenton Hinemlo yan Setbision <u>Environmental</u>, <u>Dr. Torres Hospital</u>, <u>Saipan CM</u> <u>96950</u>, gi halom trenta (30) dias ginen ayo na fecha anai mapublika este na notisia gi Commonwealth Register.

FECHA: 6/

DR. JOSE T. VILLAGOMEZ Direktot i Depattamenton Hinemlo yan Setbision Environmental

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COMMONWEALTH OF NORTHERN MARIANA ISLANDS .

DRINKING WATER REGULATIONS

PART 1 GENERAL PROVISIONS

1.1 <u>Authority and Scope</u>. These regulations have been promulgated by the Department in accordance with the Commonwealth of the Northern Mariana Islands Public Law 1-8. These regulations and technical provisions and specifications to be adopted by the Department from time to time, shall have the force and effect of law and shall be binding on all persons and other legal entities subject to the jurisdiction of the Commonwealth of the Northern Mariana Islands. The Department shall apply these regulations and standards to all public water systems in the Commonwealth.

PART 2 PURPOSE

2.1 The purpose of these regulations and technical provisions and specifications is to establish certain minimum standards and requirements as determined by the Department to be necessary for the public health and safety to insure that public water supply systems are protected against contamination and pollution and do not constitute a health hazard.

PART 3 DEFINITIONS

(a) "Department" means the Commonwealth Department of Public Health and Environmental Services.

(b) "Contaminant" means any physical, chemical, biological or radiological substance or matter in water.

(c) "Person" means the Commonwealth, Federal Government, or any agency or institution thereof, municipality, political subdivision, public or private corporation, individual, partnership, association, cooperative association, common carrier, or other entity, and includes any officer or governing or managing body of any municipality, political subdivision, public or private corporation, association, or cooperative association.

(d) "Public Water System" means a system for the provision to the public of water through a pipe or pipes, faucet(s) and/or valve(s) for human consumption, if such system has at least fifteen (15) service connections, or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. Such term includes (1) any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system; and, (2) any collection or pre-treatment storage facilities not under such control which are used primarily in connection with such system. A public water system is either a "community water system" or a "non-community water system."

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(e) "Community Water System" means a public water system which serves at least fifteen (15) service connections used by year-round residents, or regularly serves at least twentyfive (25) year-round residents.

(f) "Non-Community Water System" means a public water system that is not a community water system.

(g) "Dose Equivalent" means the product of the absorbed dose from ionizing radiation and such factors as account for differences in biological effectiveness due to the type of radiation and its distribution in the body as specified in the International Commission on Radiological Units and Measurements (ICRU).

(h) "Rem" means the unit dose equivalent from ionizing radiation to the total body or any internal organ or organ system. A "Millirem (mrem)" is 1/1000 of a rem.

(i) "Picocurie (pCi)" means that quantity of radioactive material producing 2.22 nuclear transformations per minute.

(j) "Gross Alpha Particle Activity" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample.

(k) "Man-made Beta Particle and Photon Emitters" means all radionuclides emitting beta particles and/or photons listed in Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure, NBS Handbook 69, except the daughter products of thorium-232, uranium-235 and uranium-238.

(1) "Gross Beta Particle Activity" means the total radioactivity due to beta emission as inferred from measurements on a dry sample.

(m) "Potable Water" means water is of a quality that meets the requirements of these regulations.

(n) "Agency Regulations" means those regulations promulgated by the U.S. Environmental Protection Agency pursuant to Sections 1412 through 1416, 1445 and 1450 of U.S. Public Law 93-523.

(o) "Sanitary Survey" means an on-site review of the water source, facilities, equipment, operation and maintenance of a public water system for the purpose of evaluating the adequacy of such source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water.

(p) "Standard Sample" means the aliquot of finished drinking water that is examined for the presence of coliform bacteria.

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(q) "Supplier of Water" means any person who owns or operates a public water system.

"Agency" means the U.S. Environmental Protection Agency. (r)

(s) "Maximum Contaminant Level (MCL)" means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system, except in the case of turbidity, where the maximum permissible level is measured at the point of entry to the distribution system. Contaminants added to the water under circumstances controlled by the user, except those resulting from corrosion of piping and plumbing caused by water quality, are excluded from this definition.

"Drinking Water Quality Standards" or "Standards" means (t)those primary or secondary drinking water regulations as defined in the CNMI Environmental Protection Act of 1982, or the Environmental Quality Protection Agency Act of the Trust Territory (63 TTC Sections 501-509), whichever is in effect.

SITING AND DESIGN REVIEW REQUIREMENTS PART 4

4.1 Siting Requirements and Notification of Intent.

Before a person may enter into a financial commitment for or initiate construction of a new public water system or increase the capacity of or modify an existing public water system, he shall notify the Department and submit with such notification a conceptual descriptive plan with appropriate sketches detailing proposed location, water source capacity, budget estimates and other data as described in paragraph 4.2. He shall, to the extent practicable, avoid locating part or all of the new or expanded facility at a site which:

(a) Is subject to a significant risk from earthquakes, floods, fires or other disasters which could cause a breakdown of the public water system or a portion thereof; or,

(b) Except for intake structures, is within the floodplain of a 100-year flood or is lower than any recorded high tide where appropriate records exist; or,

(c) In the case of a roof catchment, where reasonable consideration has not been given to effective typhoonization of buildings, roofs, guttering and other catchment appurtenances.

4.2 Design and Construction Review Requirements.

No person shall cause or allow the construction of or change of any public water supply, without approval of final drawings and specifications by the Department. Final drawings and specifications shall be reviewed on the basis that the completed facility will produce water, the quality of which meets the standards prescribed by these regulations. Public water supply installation, change, or addition.

shall not include routine maintenance, service pipe connections, hydrants and valves, or replacement of equipment, pipe, and appurtenances with equivalent equipment, pipe, and appurtenances. All work performed on a public water supply shall be in accordance with accepted engineering practices.

(a) Notification of Intent. The notification of intent to construct a new public water supply system or to increase the capacity of an existing public water supply system as required in paragraph 4.1, shall include the following data and/or information:

(1) Name and address of person who intends to construct or modify public water supply system;

(2) Name and address of person who will be the supplier of water to the public;

(3) Location of proposed water source or sources on a $8\frac{1}{2} \times 11$ " portion of topographic map section;

(4) Type of source (spring, stream, well, roof catchment, ground catchment, or other);

(5) Estimated capacity of source in gallons or cubic meters per day during normal rainfall conditions;

(6) Horizontal area of proposed catchment in square meters or square feet;

(7)(i) Type of roof materials, if roof catchment; or,

(ii) Description of topography and nature of vegetation; if ground catchment,

(8) Planned raw water storage capacity (or proposed increase in raw water storage capacity;

(9) Description of water treatment proposed;

(10) Number of persons to be supplied now;

(11) Anticipated population of service area ten (10) years from now;

(12) Existing method of sewage disposal and methods expected in the future;

(13) Proposed storage capacity of treated water, if known;

(14) If source is to be a well or wells:

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(i) Estimated depth(s)

(ii) Measures to be taken to exclude surface water from well; and,

(iii) Kind of pump(s) to be used, i.e., hand, electric, engine, windmill, etc.

(15) Budget estimate for construction;

(16) Expected source of funds; and,

(17) Other data as may be required by the Department.

(b) <u>Review and Action Upon Notice of Intent</u>. The Division of Environmental Quality, as authorized by the Department, shall review a notice of intent to construct or modify a public water supply system for completeness within thirty (30) calendar days from receipt by the Department and either:

(1) Fully or conditionally approve the notice for the preparation of final plans and specifications for the proposed facility;

(2) Notify the proposed constructor that additional information is required;

(3) Deny the proposal to construct giving written appropriate environmental reasons for the denial; or

(4) After any notification is deemed complete by the Department and forty-five (45) days have passed without action, the proposed notification is automatically approved and the constructor may proceed with preparation of final drawings and specifications.

(c) <u>Preparation of Final Drawings and Specifications</u>. Preparation of final drawings and specifications for a public water supply system shall be based upon accepted engineering practice and shall be directed toward construction of a facility which will produce drinking water the quality of which shall meet the standards prescribed in these regulations. The final plans and specifications shall generally follow the intent expressed in the approved notification.

Preparation of final drawings and specifications will be supervised by a person experienced in the construction and operation and maintenance of water supply systems.

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(d) Review and Approval of Final Drawings and Specifications.

(1) Final drawings and specifications shall be submitted to the Department for review.

(2) The Department shall either:

(i) Approve the drawings and specifications; or

(ii) Request changes in the drawings and specifications by the constructor.

(3) The action prescribed in paragraph (2) shall be completed within ten (10) working days from the time the drawings and specifications are received by the Department.
After any requested changes as requested under paragraph (2) (ii) have been made, the Department shall approve or disapprove within five (5) working days of receipt of the documents.

4.3 Emergency permits. Whenever emergencies affecting the safety or adequacy of a public water supply requires modifications or additions, the Department shall be notified. The Department may delegate its responsibility under this paragraph to the Mayor of each Municipality. Delegation must be in writing. The Mayor may issue emergency construction permits by telephone or other message with whatever special conditions he deems necessary for the proper safeguarding of the health of the water consumers. Plans and specifications covering the work as constructed under the emergency permit must be submitted to the Department as soon as reasonably possible. Modifications required by the Department after review of the submission shall be made promptly. The Department shall confirm in writing within ten (10) days of issuance, the Mayor's granting of an emergency permit.

4.4 <u>Emergency Permit Revocations</u>. Violation of any permit conditions or these regulations, as amended, shall be cause for revocation of any permit previously issued.

4.5 <u>Duration of Emergency Permits</u>. Duration of emergency permits will be at the discretion of the Department and shown on emergency permit.

PART 5 OPERATION, MAINTENANCE AND SELF-MONITORING

1201

CONTRACTORIA DECTORIO

This part of the regulations defines requirements to be met in the operation and maintenance of public water supply facilities, and the requirements concerning self-monitoring by the supplier of water. Permissible analytical techniques are specified herein. With the written permission of the Department, concurred in by the Administrator of the U.S. Environmental Protection Agency, alternative analytical techniques may be employed. An alternative technique shall be acceptable only if it is substantially equivalent to the prescribed test in both precision and accuracy as it relates to the determination of compliance with any maximum contaminant level. The use of the alternative analytical technique shall not decrease the frequency of monitoring required by this part.

5.1 Identification of Suppliers of Water. In cases where, for various reasons, ownership and/or operational responsibilities are not clearly defined for public water systems, the Governor shall identify the supplier(s) of water for purposes of these regulations.

5.2 Drinking Water Quality Control. It is the responsibility of the supplier of water to assure a quality of water supply that equals or surpasses drinking water quality standards of Department. This includes assurance by the supplier that users do not contaminate the public supply by the use of faulty plumbing which allows infiltration of any sort into the drinking water distribution system.

5.3 Bacteriological Quality

(a) <u>Standard Sample</u>. The standard sample for the coliform test shall consist of:

(1) For the membrane filter technique, not less than 100 milliliters.

(2) For the 5-tube most probable number (MPN) procedure (fermentation tube method), five (5) times the standard portion. The standard portion is either 10 milliliters or 100 milliliters.

(b) Suppliers of community water systems and non community water systems shall analyze water for coliform bacteria density in accordance with the analytical recommendations set forth in the latest edition of "Standard Methods for the Examination of Water and Wastewater", American Public Health Association, or the latest edition approved by the Agency, except that a standard sample as defined above must be used.

(c) <u>Sampling Points</u>. Samples shall be taken at points which are representative of the conditions within the distribution system.

(d) <u>Frequency of Sampling, Coliform Density Analysis, and</u> Contaminant Levels.

(1) The supplier of water for a community water system shall take coliform density samples for prompt analysis at regular time intervals, and in number proportionate to the population served by the system. In no event shall the frequency of sampling and analysis be less than as set forth below:

25 1,001 2,501 3,301 4,101 4,901 5,801 6,701 7,601 8,501 9,401 10,301 11,101 12,001 12,901 13,701 14,601 15,501 16,301 17,201 18,101 15,501 16,301 17,201 18,101 18,901 19,801 20,701 21,501 22,301 23,201 24,001 23,201 24,001 23,201 24,001 23,001 33,001 37,001 41,001	t t t t t t t t t t t t t t t t t t t	1,000 2,500 3,300 4,100 4,900 5,800 6,700 7,600 8,500 9,400 10,300 11,100 12,000 12,900 13,700 14,600 15,500 12,900 13,700 14,600 15,500 16,300 17,200 18,100 18,100 18,900 19,800 20,700 21,500 22,300 23,200 24,000 24,900 25,000 24,000 37,000 41,000 41,000 46,000 50,000 54,000
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Based upon a history of no coliform bacteria contamination' and upon a sanitary survey by the Department showing the water system to be supplied solely by a protected ground water source and free of sanitary defects, a community water system serving not more than 1,000 persons, with written permission from the Department, may reduce the sampling frequency, except that in no case shall it be reduced to less than one per quarter.

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(2) The supplier of water for a non-community.water system shall sample and test for coliform bacteria in each calendar quarter during which the system provides water to the public. Such sampling and testing shall be completed by the effective date of these regulations. If the Department, on the basis of a sanitary survey, determines that some other frequency is more appropriate, that frequency shall be the frequency required under these regulations. Such frequency shall be confirmed or changed on the basis of subsequent surveys.

5.31 <u>Contaminant Levels</u>. The maximum contaminant levels for coliform bacteria, applicable to community water systems and non-community water systems, are as follows:

(a) When the membrane filter technique is used, the number of coliform bacteria shall not exceed any of the following:

(1) One per 100 milliliters as the arithmetic mean of all samples examined per month;

(2) Four per 100 milliliters in more than one sample when less than 20 are examined per month; or

(3) Four per 100 milliliters in more than five percent of the samples when 20 or more are examined per month.

(b) (1) When the fermentation tube method and 10 milliliter standard portions are used, coliform bacteria shall not be present in any of the following:

(i) More than 10 per cent of the portions in any month;

(ii) Three or more portions in more than one sample when less than 20 samples are examined per month; or,

(iii) Three or more portions in more than five percent of the samples when 20 or more samples are examined per month.

(2) When the fermentation tube method and 100 milliliter standard portions are used, coliform bacteria shall not be present in any of the following:

(i) More than 60 percent of the portions in any month;

(ii) Five portions in more than one sample when less than five samples are examined per month; or,

(iii) Five portions in more than 20 percent of the samples when five or more samples are examined per month.

(c) For community or non-community systems that are required to sample at a rate of less than four (4) per month, compliance with paragraphs 5.31(a), 5.31(b)(1), or 5.31(b)(2) above, shall be based upon sampling during a 3-month period, except at the discretion of the Department, compliance may be based upon sampling during a one-month period.

(d) (1) When the coliform bacteria in a single sample exceed four (4) per 100 milliliters (paragraph 5.31(a)), at least two (2) consecutive daily check samples shall be collected and examined from the same sampling point. Additional check samples shall be collected daily, or at a frequency established by the Department until the results obtained from at least two (2) consecutive check samples show less than one coliform per 100 milliliters.

(2) When coliform bacteria occur in three (3) or more 10 ml portions of a single sample using the fermentation tube method (paragraph 5.31 (b) (1)), at least two (2) consecutive daily check samples shall be collected and examined from the same sampling point. Additional check samples shall be collected daily, or at a frequency established by the Department until the results obtained from at least two (2) consecutive check samples show no no positive tubes.

When coliform bacteria occur in all five (5) of the (3)100 ml portions of a single sample (paragraph 5.31 (b) (2)), at least two (2) daily check samples shall be collected and examined from the same sampling point. Additional check samples shall be collected daily, or at a frequency established by the Department until the results obtained from. at least two (2) consecutive check samples show no positive tubes.

(e) The location at which the check samples were taken pursuant to paragraphs 5.31(d)(1), 5.31(d)(2), or 5.31(d)(3), shall not be eliminated from future sampling without the approval of the Department. The results from all coliform bacterial analyses performed pursuant to this Part, except those obtained from check sampling and special purpose samples, shall be used to determine compliance with the maximum contaminant level for coliform bacteria as established hereinbefore under subparagraphs 5.31(a), 5.31(b), and 5.31(c), under the heading "Contaminant Levels". Check samples shall not be included in calculating the total number of samples taken each month to determine compliance as hereinbefore stated and/or tabulated.

(f) When the presence of coliform bacteria in water taken from a particular sampling point has been successively confirmed by any check sample procedure as directed in paragraphs 5.31(d)(1), 5.31(d)(2), or 5.31(d)(3), the supplier of water shall report to the Department within forty-eight (48) hours of such determination. (g) When a maximum contaminant level set forth in paragraphs 5.31(a), 5.31(b), or 5.31(c), is exceeded, the supplier of water shall report to the Department and notify the public as prescribed in paragraphs 5.82 and 5.83.

(h) Special purpose samples, such as those taken to determine whether disinfection practices following pipe placement, replacement, or repair have been sufficient, shall not be used to determine compliance with paragraphs 5.31(a), 5.31(b), 5.31(c), or 5.31(d).

A supplier of water of a community water system or a (i) non-community water system may, with the approval of the Department and based upon a sanitary survey, substitute the use of chlorine residual monitoring for not more than 75 percent of the samples required to be taken by paragraph 5.3(d) of this regulation, provided that the supplier of water takes chlorine residual samples at points which are representative of the conditions within the distribution system at the frequency of at least four (4) for each substituted microbiological sample. There shall be at least daily determinations of chlorine residual. When the supplier of water exercises the option provided in paragraph 5.31(i) of this section, he shall maintain no less than 0.2 mg/l free chlorine throughout the public water distribution system. When a particular sampling point has been shown to have a free chlorine residual less than 0.2 mg/1, the water at that location shall be retested as soon as practicable and, in any event, within one (1) hour. If the original analysis is confirmed, this fact shall be reported to the Department within forty-eight (48) hours of such determination. Also, if the analysis is confirmed, a sample for coliform bacterial analysis must be collected from the sampling point as soon as practicable, preferably within one (1) hour, but in no case more than twelve (12) hours, and the results of such analysis reported to the Department within forty-eight (48) hours after the results are known to the supplier of water. Analyses for residual chlorine shall be in accordance with the Ferrous Titrimetric DPD or the colorimetric DPD method as provided in the latest edition of "Standard Methods for the Examination of Water and Wastewater". published by the American Public Health Association, or the EPA approved edition. Compliance with the maximum contaminant levels for coliform bacteria shall be determined on the monthly mean or quarterly mean basis specified as aforementioned, including those samples taken as a result of failure to maintain the required chlorine residual level. The Department may withdraw its approval of the use of chlorine residual substitution at any time.

5.4 Quality with Respect to Turbidity

5.41 Maximum Contaminant Levels. The maximum contaminant levels for turbidity are applicable to both community water systems and non-community water systems using surface water sources in whole or in part. The maximum contaminant levels for turbidity in drinking water, measured at a representative entry point(s) to the distribution system, are:

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(a) One turbidity unit (TU) as determined by a monthly average pursuant to sampling and analytical methods described hereinafter, except that five (5) or fewer turbidity units may be allowed if the supplier of water can demonstrate to the Department that the higher turbidity does not do any of the following:

> (1)Interfere with disinfection;

Prevent maintenance of an effective disinfectant (2)agent throughout the distribution system; or,

Interfere with microbiological determinations. (3)

Five (5) turbidity units based upon an average of two (b) (2) consecutive days pursuant to turbidity sampling and analytical methods described hereinafter.

5.42 Turbidity Sampling and Analytical Requirements

(a) The requirements of this paragraph and paragraph 5.41 shall apply only to public water systems which use water obtained in whole or in part from surface sources.

(b) Samples shall be taken by suppliers of water for both community water systems and non-community water systems at a representative entry point(s) to the water distribution system at least once per day, for the purpose of making turbidity measurements to determine compliance with paragraph 5.41 above. The measurement shall be made by the Nephelometric Method in accordance with the recommendations set forth in the latest edition of "Standard Methods for the Examination of Water and Wastewater", American Public Health Association, or the EPA approved edition, or "Methods for Chemical Analysis of Water and Wastes", pp. 295-298, Environmental Protection Agency, Office Technology Transfer, Washington, D.C. 20460, 1974.

(c) If the result of a turbidity analysis indicates that the maximum allowable limit has been exceeded, the sampling and measurement shall be confirmed by re-sampling as soon as practicable and preferably within one (1) hour, but in no case more than three (3) hours. If the repeat sample confirms that the maximum allowable limit has been exceeded, the supplier of water shall report to the Department within forty-eight (48) hours of the final determination. The repeat sample shall be the sample used for the purpose of calculating the monthly average. If the monthly average of the daily samples exceeds the maximum allowable limit, or if the average of two (2) samples taken on consecutive days exceeds 5 TU, the supplier of water shall report to the Department and notify the public as directed in paragraphs 5.82 and 5.83 hereinafter.

(d) Sampling for non-community water systems shall begin immediately upon the effective date of these regulations.

5.5 Quality with Respect to Inorganic Chemicals and Physical Standards

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5.51 Maximum Contaminant Levels

(a) The maximum contaminant level for nitrate is applicable to both community and non-community water systems. The levels for other inorganic chemicals apply only to community water systems.

(b) The following are the maximum contaminant levels for inorganic chemicals:

Contaminant	Level Milligrams Per Liter
Arsenic	0.05
Barium	1.0
Cadmium	0.010
Chromium	0.05
Lead	0.05
Mercury	0.002
Nitrate (as N)	10.0
Selenium	0.01
Silver	0.05
Fluoride	1.4

5.51(c)(1) Special Monitoring for Sodium

(a) Suppliers of water for community public water systems shall collect and analyze one sample per plant at the entry point of the distribution system for the determination of sodium concentration levels; samples must be collected and analyzed annually for systems utilizing surface water sources in whole or in part, and at least every three years for systems utilizing solely ground water sources. The minimum number of samples required to be taken by the system shall be based on the number of treatment plants used by the system, except that multiple wells drawing raw water from a single aquifer may, with the Department's approval, be considered one treatment plant for determining the minimum number of samples. The Supplier of water may be required by the Department to collect and analyze samples for sodium more frequently in locations where the sodium content is variable.

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(b) The supplier of water shall report to the Department the results of the analyses for sodium within the first 10 days of the month following the month in which the sample results were received or within the first 10 days following the end of the required monitoring period as stipulated by the Department, whichever of these is first. If more than annual sampling is required the supplier shall report the average sodium concentration within 10 days of the month following the month in which the analytical results of the last sample used for the annual average was received.

(c) The Department shall notify appropriate local and state public health officials of the sodium levels by written notice by direct mail within three months. A copy of each notice required to be provided by this paragraph shall be sent to EPA within 10 days of its issuance.

(d) Analyses for sodium shall be performed by the flame photometric method in accordance with the procedures described in "Standard Methods for the Examination of Water and Wastewater," 14th Edition, pp. 250-253; or by Method 273.1. Atomic Absorption-Direct Aspiration or Method 273.2. Atomic Absorption-Graphite Furnace, in "Method for Chemical Analysis of Water and Waste," EMSL, Cincinnati, EPA, 1979; or by Method D1428-64(a) in Annual Book of ASTM Standards, part 31, Water.

5.51(c)(2) Special Monitoring for Corrosivity Characteristics

(a) Suppliers of water for community public water systems shall collect samples from a representative entry point to the water distribution system for the purpose of analysis to determine the corrosivity characteristics of the water.

(1) The supplier shall collect two samples per plant for analysis for each plant using surface water sources wholly or in part or more if required by the Department, one during mid-winter and one during mid-summer. The supplier of the water shall collect one sample per plant for analysis for each plant using ground water sources or more if required by the Department. The minimum number of samples required to be taken by the system shall be based on the number of treatment plants used by the system, except that multiple wells drawing raw water from a single aquifer may, with the Department approval, be considered one treatment plant for determining the minimum number of samples.

(2) Determination of the corrosivity characteristics of the water shall include measurement of pH, calcium hardness, alkalinity, temperature, total dissolved solids (total filterable residue), chloride, sulfate and calculation of the Langelier Index in accordance with paragraph (c) below. The determination of corrosivity characteristics

shall only include one round of sampling (two samples per plant for surface water and one sample per plant for ground water sources). In certain cases, the Aggresive Index, as described in paragraph (c), can be used instead of the Langelier Index; the supplier shall request in writing to the Department and the Department will make this determination.

(b) The supplier of water shall report to the Department the results of the analyses for the corrosivity characteristics within the first 10 days of the month following the month in which the sample results were received. If more frequent sampling is required by the Department, the supplier can accumulate the data and shall report each value within 10 days of the month following the month in which the analytical results of the last sample was received.

(c) Analyses conducted to determine the corrosivity of the water shall be made in accordance with the procedures described in 40 CFR 141.42(c).

(d) Community water supply systems shall identify whether the following construction materials are present in their distribution system and report to the Department.

(1) Lead from piping, solder, caulking, interior lining of distribution mains, alloys and home plumbing.

(2) Copper from piping and alloys, service lines, and home plumbing.

(3) Galvanized piping, service lines, and home plumbing.

(4) Ferrous piping materials such as cast irons and steel.

(5) Asbestos cement pipe.

(6) Vinyl lined asbestos cement pipe.

(7) Coal tar lined pipes and tanks.

5.52 Physical Standards

(a) Color will preferably not exceed five (5) units and in no case exceed fifty (50) units.

(b) Taste will not be objectionable.

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(c) Threshold odor number will not exceed three (3).

5.53 Inorganic Chemical and Physical Sampling and Analytical Requirements

(a) Analyses for the purpose of complying with paragraphs 5.51 and 5.52 above, are required as follows:

(1): Analyses for all community water systems utilizing surface water shall be repeated at, at least, yearly intervals. Initial sampling and analyses shall be completed by the effective date of these regulations.

(2): Analyses for all community water systems utilizing only ground water sources shall be repeated at, at least, three-year intervals. Initial sampling and analyses shall be completed by the effective date of these regulations.

(3): For non-community water systems, whether supplied by surface or groundwater sources, sampling and analyses for nitrate shall be completed as soon as possible and in no event later than the effective date of these regulations. These analyses shall be repeated in intervals of three (3) years or as otherwise needed as determined by the Department.

(b) If the result of an analysis made pursuant to paragraph (a) indicates that the level of any contaminant listed in paragraphs 5.51(b) or (c) exceeds the maximum contaminant level, the supplier of water shall report to the Department within seven (7) days and initiate three (3) additional analyses at the same sampling point within one (1) month.

(c) When the average of four (4) analyses made pursuant to paragraph 5.53 (b) of this section, rounded to the same number of significant figures as the maximum contaminant level for the substance in question, exceeds the maximum contaminant level, the supplier of water shall notify the Department and the public pursuant to paragraphs 5.82 and 5.83 below which prescribe reporting and public notice. Monitoring after public notification shall be at a frequency designated by the Department and shall continue until the maximum contaminant level has not been exceeded in two (2) successive samples or until a monitoring schedule as a condition to a variance, exemption or enforcement action shall become effective. (d) The provisions of paragraphs (b) and (c) of this section notwithstanding, compliance with the maximum contaminant level for nitrate shall be determined on the basis of the mean of two analyses. When a level exceeding the maximum contaminant level for nitrate is found, a second analysis shall be initiated within twentyfour (24) hours, and if the mean of the two analyses exceeds the maximum contaminant level, the supplier of water shall report his findings to the Board and notify the public pursuant to paragraphs 5.82 and 5.83 below, which prescribed reporting and public notice.

(e) For the initial analysis required by paragraph 5.53
(a) (1), (2), or (3) of this section, data for surface waters acquired since within one year prior to the effective date of these regulations, may be substituted at the discretion of the Department.

(f) Analyses conducted to determine compliance with the maximum contaminant levels prescribed in paragraphs 5.61 (a) and (b) shall be as prescribed by current Agency regulations (Paragraph 141.23 (f) of the National Interim Primary Drinking Water Regulations published in Federal Register, December 24, 1975). Analyses to determine contaminant levels of chloride, calcium, total hardness, total solids, color, taste and odor will be conducted according to methods prescribed in the latest edition of "Standard Methods for the Examination of Water and Wastewater" by the American Public Health Association or the EPA approved edition.

5.6 Quality with Respect to Organic Chemicals

5.61 <u>Maximum Contaminant Levels</u>. The following are the maximum contaminant levels for organic chemicals. They apply only to community water systems. Compliance with maximum contaminant levels for organic chemicals is calculated pursuant to paragraph 5.62 below.

Level, Milligrams Per Liter

(a) Chlorinated hydrocarbons:

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Endrin (1,2,3,4,10, 10-hexachloro-6, 7-epoxy-1, 4,4a,5,6,7,8,8a-octahydro-1, 4-endo, endo-5, 8-dimethano naphthalene) 0.0002

Lindane (1,2,3,4,5, 6-Hexachlorocyclohexane, Gamma isomer) 0.004

Methoxychlor (1,1,1-Trichloro-2,2-bis (pmethoxyphenyl)-ethane)

Toxaphene(C H C1 - Technical chlorinated 10 10 8 camphene, 67-69 percent chlorine)

\$ 26.3

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0.005

0.1

Chlorophenoxys:

2,4-D (2,4- Dichlorophenoxyacetic acid).

2,4,5-TP, Silvex (2,4,5-Trichlorophenoxypropionic acid) 0.01

5.62 Organic Chemical Sampling and Analytical Requirements

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(a) An analysis of substances for the purpose of determining compliance with paragraph 5.61 above, shall be made as follows:

(1) For all community water systems utilizing surface water sources, initial sampling and analyses shall be completed by the effective date of these regulations. Samples analyzed shall be collected during the period of the year designated by the Department as the period when contamination by pesticide is most likely to occur. These analyses shall be repeated at intervals specified by the Department but in no event less frequently than at three-year intervals.

(2) For community water systems utilizing only ground water sources, analyses shall be completed by those systems specified by the Department.

(b) If the result of an analysis made pursuant to paragraph (a) of this section indicates that the level of any contaminant listed in paragraph 5.61 exceeds the maximum contaminant level, the supplier of water shall report to the Department within seven days and initiate three additional analyses within one month.

(c) When the average of four (4) analyses made pursuant to paragraph (b) of this section, rounded to the same number of significant figures as the maximum contaminant level for the substance in question, exceeds the maximum contaminant level, the supplier of water shall report to the Department and give notice to the public pursuant to paragraphs 5.82 and 5.83 following, which prescribe such reporting and public notice. Monitoring after public notification shall be at a frequency designated by the Department and shall continue until the maximum contaminant level has not been exceeded in two (2), successive samples or until a monitoring schedule as a condition to a variance, exemption or enforcement action shall become effective.

(d) For the initial analysis required by paragraph 5.62 (1) and (2) of this section, data for surface water acquired within one year and data for ground water acquired within three years prior to the effective date of these regulations may be substituted at the discretion of the Department. (e) Analyses made to determine compliance with paragraph 5.61 (a) shall be made in accordance with procedures described in 40 CFR 141.24 (e) and (f).

5.7 Radionuclides

5.71 Maximum Contaminant Levels for Radium-226, Radium-228, and Gross Alpha Particle Radioactivity in Community Water Systems. The following are the maximum contaminant levels for radium-226, radium-228, and gross alpha radioactivity:

(a) Combined radium-226 and radium-228 -- 5 pCi/1.

(b) Gross alpha particle activity (including radium-226, but excluding radon and uranium) -- 15 pCi/1.

5.72 <u>Maximum Contaminant Levels for Beta Particle and Photon</u> Radioactivity from Man-Made Radionuclides in Community Water Systems

(a) The average annual concentration of beta particle and photon radioactivity from man-made radionuclides in drinking water shall not produce an annual dose equivalent to the total body or any internal organ greater than 4 millirem/year.

(b) Except for the radionuclides listed in Table a, the concentration of man-made radionuclides causing 4 mrem total body or organ dose equivalent shall be calculated on the basis of a 2 liter per day drinking water intake using the 168-hour data listed in "Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure", NBS Handbook 69, as amended August, 1963, U.S. Department of Commerce. If two (2) or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed 4 millirem/year.

TABLE A -- Average Annual Concentrations Assumed to Produce a Total Body or Organ Dose of 4 mrem/year

Radionuclide	<u>Critical Organ</u>	<u>pCi Per Liter</u>
Tritium Strontium-90	Total Body Bone Marrow	20,000

5.73 Analytical Methods for Determining Radioactivity

Methods used for the determination shall be those currently approved by the Agency as set forth in 40 CFR 141.25, 141.26.

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Monitoring Frequency for Radioactivity in Community 5.74 Water Systems

(a) Monitoring requirements for gross alpha particle activity, radium-226 and radium-228.

(1) Initial sampling to determine compliance with paragraph 5.71 shall commence immediately upon the effective date of these regulations and the analysis shall be completed within one (1) year from the effective date of these regulations. Compliance shall be based on the analysis of an annual composite of four (4) consecutive quarterly samples or the average analyses of four (4) samples obtained at quarterly intervals.

(i) A gross alpha particle activity measurement may be substituted for the required radium-226 and radium-228 analysis, provided that the measured gross alpha particle activity does not exceed 5 pCi/l at a confidence level of 95 percent (1.65 o, where o is the standard deviation of the net counting rate of the sample). In localities where radium-228 may be present in drinking water, analyses for radium-226 and/or fadium-228 shall be made when gross alpha particle activity exceeds 2 pCi/1.

(ii) When the gross alpha particle activity exceeds 5 pCi/1, the same or equivalent sample shall be analyzed for radium-226. If the concentration of radium-226 exceeds 3 pCi/1, the same or an equivalent sample shall be analyzed for radium-228.

(2) For the initial analysis required by paragraph (a) (1), data acquired within one year prior to the effective date of these regulations, may be substituted at the discretion of the Department.

Suppliers of water shall monitor at least once (3)every four (4) years following the procedure required by paragraph (a) (1). At the discretion of the Department, when an annual record taken in conformance with paragraph (a) (1) has established that the average annual concentration is less than half the maximum contaminant levels established by paragraph 5.71, analysis of a single sample may be substituted for the quarterly sampling procedure required by paragraph (a) (1).

(I) More frequent monitoring shall be conducted when ordered by the Department in the vicinity of mining or other operations which may contribute alpha particle radioactivity to either surface or ground water sources of drinking water.

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(II) A supplier of water shall monitor in conformance with paragraph (a) (1) within one (1) year of the introduction of a new water source for a community water system. More frequent monitoring shall be conducted when ordered by the Department in the event of possible contamination or when changes in the distribution system or treatment processing occur which may increase the concentration of radioactivity in finished water.

(III) A community water system using two (2) or more sources having different concentrations of radioactivity shall monitor source water in addition to water from free-flowing tap, when ordered by the Department.

(IV) Monitoring for compliance with paragraph 5.71 after the initial period need not include radium-226, except when required by the Department, provided that the average annual concentration of radium-228 has been assayed at least once using the quarterly sampling procedure required by paragraph (a) (1).

(V) Suppliers of water shall conduct annual monitoring of any community water system in which the radium-228 concentration exceeds 3 pCi/1, when ordered by the Department.

(4) If the average annual maximum contaminant level for gross alpha particle activity or total radium as set forth in paragraph 5.71 is exceeded, the supplier of a community water system shall give notice to the Department pursuant to paragraph 5.82, and notify the public as required in paragraph 5.83. Monitoring at quarterly intervals shall be continued until the annual average concentration no longer exceeds maximum contaminant level or until a monitoring schedule as a condition to a variance, exemption or enforcement action shall become effective.

(b) <u>Monitoring Requirements for Man-Made Radioactivity</u> in Community Water Systems

(1) By the effective date of this regulation, systems using surface water sources as may be designated by the Department shall be monitored for compliance with paragraph 5.72 by analysis of a composite of four (4) consecutive quarterly samples or analysis of four (4) quarterly samples. Compliance with paragraph 5.72 mayMbe assumed without further analysis if the average annual concentration of gross beta particle activity is less than 50 pCi/1 and if the average annual concentrations of tritium and strontium-90 are less than those listed in Table A, provided that if both radionuclides are present, the sum of their annual dose equivalent to bone marrow shall not exceed 4 millirem/year.

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(I) If the gross beta particle activity exceeds 50 pCi/1, an analysis of the sample must be performed to identify the major radioactivity constituents present and the appropriate organ and total body doses shall be calculated to determine compliance with paragraph 5.72.

(II) Suppliers of water shall conduct additional monitoring, as ordered by the Department to determine the concentration of man-made radioactivity in principle watersheds designated by the Department.

(III) At the discretion of the Department, suppliers of water utilizing only ground water may be required to monitor for man-made radioactivity.

(2) For the initial analysis required by paragraph (b) (1) data acquired within one year prior to the effective date of these regulations, may be substituted at the discretion of the Department.

(3) After the initial analysis required by paragraph (b)(1), suppliers of water shall monitor at least every four (4)years following the procedure in paragraph (b) (1).

(4) The supplier of any community water system designated by the Department as utilizing waters contaminated by effluents from nuclear facilities shall immediately initiate quarterly monitoring for gross beta particle and iodine-131 radioactivity and annual monitoring for strontium-90 and tritium.

(I) Quarterly monitoring for gross beta particle activity shall be based on the analysis of monthly samples or the analysis of a composite of three (3) monthly samples. The former is recommended. If the gross beta particle activity in a sample exceeds 15 pCi/1, the same or an equivalent sample shall be analyzed for strontium-89 and cesium-134. If the gross beta particle activity exceeds 50 pCi/1, an analysis of the sample must be performed to identify the major radioactive constituents present and the appropriate organ and total body doses shall be calculated to determine compliance with paragraph 5.72.

(II) For iodine-131, a composite of five (5) consecutive daily samples shall be analyzed once each quarter. As ordered by the Department, more frequent monitoring shall be conducted when iodine-131 is identified in the finished water.

(III) Annual monitoring for strontium-90 and tritium shall be conducted by means of the analysis of a composite of four (4) consecutive quarterly samples or analysis of four (4) quarterly samples. The latter procedure is recommended.

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The Department may allow the substitution of environ-(IV)mental surveillance data taken in conjunction with a nuclear facility for direct monitoring of man-made radioactivity by the supplier of water where the Department determines such data is applicable to a particular community water system.

If the average annual maximum contaminant level for (5)man-made radioactivity set forth in paragraph 5.72 is exceeded, the operator of a community water system shall give notice to the Department pursuant to paragraph 5.82 and to the public as required by paragraph 5.83. Monitoring at monthly intervals shall be continued until the concentration no longer exceeds the maximum contaminant level or until a monitoring schedule as a condition to a variance, exemption or enforcement action shall become effective.

5.8 Approved Laboratories, Reporting, Public Notification, Record Keeping and Right of Entry

5.81 Approved Laboratories. For the purpose of determining compliance with the maximum contaminant levels set forth in paragraphs 5.3 through 5.7, hereinbefore, samples may be considered only if they have been analyzed by a laboratory approved by the Department, except that measurements for chlorine residual may be performed by any person acceptable to the Department.

5.82 Reporting Requirements

(a) Except where a shorter reporting period is specified in this regulation, the supplier of water shall report to the Department within forcy (40) days following a test, measurement or analysis required to be made by this regulation, the results of that test, measurement or analysis.

(b) The supplier of water shall report to the Department within forty-eight (43) hours the failure to comply with any primary drinking water regulation (including failure to comply with monitoring requirements) set forth in this regulation.

(c) The supplier of water is not required to report analytical results to the Department in cases where a laboratory performs the analysis and reports the results to the Department office which would normally receive such notification from the supplier.

5.83 Public Notification

(a) If the community water system fails to comply with an applicable maximum contaminant level established in this regulation, fails to comply with an applicable testing procedure prescribed in this regulation, is granted a variance or an exemption for an applicable maximum contaminant level, fails to comply with the requirements of any schedule prescribed pursuant to a variance or exemption, or fails to perform any monitoring required pursuant to Section 1445 (a) of the Act, the supplier of water

shall notify persons served by the system of the failure or (variance or exemption) grant by inclusion of a notice in the first set of water bills of the system issued after the failure or (variance or exemption) grant, and, in any event, by written notice within one (1) month. Such notice shall be repeated at least once monthly so long as the system's failure continues or the variance or exemption remains in effect. If the system issues water bills less frequently than quarterly, or does not issue bills, the notice shall be made by or supplemented by another form of direct mail.

(b) If a community water system has failed to comply with an applicable maximum contaminant level, the supplier of water shall notify the public of such failure, in addition to the notification required by paragraph (a) of this section, as follows:

(1) By publication on not less than three (3) consecutive days in a newspaper or newspapers of general circulation in the area served by the system. Such notice shall be completed within fourteen (14) days after the supplier of water learns of the failure.

(2) By furnishing a copy of the notice to the radio or television stations serving the area served by the system. Such notice shall be furnished within seven (7) days after the supplier of water learns of the failure.

(c) If the area served by a community water system is not served by a daily newspaper of general circulation, notification by newspaper required by paragraph (b) of this section shall instead be given by publication on three (3) consecutive weeks in a weekly newspaper of general circulation serving the area. If no weekly or daily newspaper of general circulation serves the area, notice shall be given by posting the notice in the post office, village office or other public place, within the area served by the system.

(d) If a non-community water system fails to comply with an applicable maximum contaminant level established in this regulation, fails to comply with an applicable testing procedure established in this regulation, is granted a variance or an exemption from an applicable maximum contaminant level, fails to comply with the requirement of any schedule prescribed pursuant to a variance or exemption or fails to perform any monitoring required pursuant to Section 1445 (a) of the Act, the supplier of water shall give notice of such failure or grant to the persons served by the system. The form and manner of such notice shall be as prescribed by the Department and shall insure that the public using the system is adequately informed of the failure or grant.

(e) Notices given pursuant to this section will be written in a manner reasonably designed to inform fully the users of the system. The notice shall be conspicuous and shall not use unduly technical language, unduly small print or other methods which

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would frustrate the purpose of the notice. The notice shall disclose all material facts regarding the subject including the nature of the problem and, when appropriate, a clear statement that a primary drinking water regulation has been violated and any preventive measures that should be taken by the public. When appropriate, or where designated by the Department, trilingual notice shall be given. Notice may include a balanced explanation of the significance or seriousness to the public health of the subject of the notice, a fair explanation of steps taken by the system to correct any problem and the results of any additional sampling.

(f) Notice to the public required by this section may be given by the Department on behalf of the supplier of water.

(g) In any instance in which notification by mail is required by paragraph (a) of this section but notification by newspaper or to radio or television stations is not required by paragraph (b) of this section, the Department may order the supplier of water to provide notification by newspaper and to radio or television stations when circumstances require more immediate or broader notice appropriate to protect the public health.

5.84 <u>Record Maintenance</u>. Any owner or operator of a public water system subject to the provisions of this part shall retain on its premises or at a convenient location near its premises the following records:

(a) Records of bacteriological analyses made pursuant to this part shall be kept for not less than five (5) years. Records of chemical analyses made pursuant to this part shall be kept for not less than ten (10) years. Actual laboratory reports may be kept, or data may be transferred to tabular summaries, provided that the following information is included:

(1) The date, place, and time of sampling, and the name of the person who collected the sample;

(2) Identification of the sample as to whether it was a routine distribution system sample, check sample, raw or process water sample or other special purpose sample;

(3) Date of analysis;

(4) Laboratory and person responsible for performing analysis;

(5) The analytical technique/method used; and,

(6) The results of the analysis.

Records of action taken by the system to correct viola-(b) tions of primary drinking water regulations shall be kept for a period not less than three (3) years after the last action taken with respect to the particular violation involved.

(c) Copies of any written reports, summaries or communications relating to sanitary surveys of the system conducted by the system itself, by a private consultant, or by any local, Commonwealth, or Federal agency, shall be kept for a period not less than ten (10) years after completion of the sanitary surveys involved.

Records concerning a variance or exemption granted to (d) the system shall be kept for a period ending not less than five (5) years following the expiration of such variance or exemption.

(e) For uniformity of reporting, the Department may prescribe forms on which specific records shall be kept.

5.85 Right of Entry. Members of the Department may at any time enter upon and inspect public water systems, take water samples, and perform tests upon water quality, whether or not the Department has evidence that the system is in violation of any applicable legal requirement.

PART 6 VARIANCES

The Department may issue variances from the requirements of primary drinking water regulations under conditions and in a manner which are not less stringent than those which may be granted under Section 1415 of U.S. P.L. 93-523.

6.1 Variances

6.11 Requirements for a Variance

(a) The Department may grant one (1) or more variances to any public water system within the CNMI from any requirement respecting a maximum contaminant level prescribed in these regulations upon a finding that:

(1) Because of characteristics of the raw water sources which are reasonably available to the system, the system cannot meet the requirements respecting the maximum contaminant levels of such drinking water regulations despite application of the best technology, treatment techniques, or other methods, which the Administrator of EPA finds are generally available (taking costs into consideration); and,

(2) The granting of a variance will not result in an unreasonable risk to the health of persons served by system.

(3) Within one (1) year of the date that the variance is granted the Department shall prescribe a schedule for;

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(I) Compliance (including increments of progress) by the public water system with each contaminant level requirement with respect to which the variance was granted, and

(II) Implementation by the public water system of such control measures as the Department may require for each contaminant, subject to such contaminant level requirement, during the period ending on the date of compliance which such requirement is required.

(b) The Department may grant one (1) or more variances to any public water system within the CNMI from any requirement of a specified treatment technique of these regulations upon a finding that the public water system applying for the variance has demonstrated that such treatment technique is not necessary to protect the health of persons because of the nature of the raw source of such system.

(c) Any variance granted pursuant to 6.11 (a) shall be conditioned upon compliance by the public water system with the schedule prescribed by the Department in 6.11 (a) (3). The requirements of each schedule prescribed pursuant to 6.11 (a) (3) shall be enforceable by the Department under Commonwealth law. Any requirement of a schedule on which a variance granted under 6.11 (a) (3) is conditioned may be enforced under Section 1414 of U.S. P.L. 93-523 as if such regulation was part of a national primary drinking water regulation.

(d) Any schedule prescribed pursuant to 6.11 (a) (3) for a public water system granted a variance shall require compliance by the system with each contaminant level requirement with respect to which the variance was granted as expeditiously as practicable (as the Commonwealth may reasonably determine).

6.12 Variance Request. A supplier of water may request the granting of a variance submitting such in writing to the Department. Suppliers of water may submit a joint request for variances when they seek similar variances under similar circumstances. Any written request for a variance or variances shall include the following information:

(a) The nature and duration of variance requested;

(b) Relevant analytical results of water quality sampling of the system, including results of relevant tests conducted pursuant to the requirements of these regulations; and,

(c) For any request made under paragraph 6.11 (a);

(1) Explanation in full and evidence of the best available treatment technology and techniques;

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(2) Economic and legal factors relevant to ability to comply;

(3) Analytical results of raw water quality relevant to the variance request; and,

(4) A proposed compliance schedule, including the date each step toward compliance will be achieved. Such schedule shall include as a minimum the following dates:

(I) Date by which arrangment for alternative raw water source or improvement of existing raw water source will be completed.

(II) Date of initiation of the connection of the alternative raw water source or improvement of existing raw water source.

(III) Date by which final compliance is to be achieved.

(5) A plan for the provision of safe drinking water in the case of an excessive rise in the contaminant level for which the variance is requested.

(6) A plan for interim control measures during the effective period of variance.

(d) For any request made under paragraph 6.11 (b), a statement that the system will perform monitoring and other reasonable requirements prescribed by the Department as a condition to the variance.

(e) Other information, if any, believed to be pertinent by the applicant.

(f) Such other information as the Department may require.

6.13 Consideration of Variance Request

(a) The Department shall act on any variance request submitted pursuant to paragraph 6.12 within ninety (90) days of receipt of the request.

(b) In its consideration of whether the public water system is unable to comply with a contaminant level required by these regulations because of the nature of the raw water source, the Department shall consider such factors as the following:

(1) The availability and effectiveness of treatment methods for the contaminant for which the variance is requested. (2) Cost and other economic considerations such as implementing treatment, improving the quality of the source water or using an alternative source.

(c) In its consideration of whether a public water system should be granted a variance to a required treatment technique because such treatment is unnecessary to protect the public health, the Department shall consider such factors as the following:

(1) Quality of the water source including water quality data and pertinent sources of pollution.

(2) Source protection measures employed by the public water system.

6.14 Disposition of a Variance Request

(a) If the Department decides to deny the application for a variance, it shall notify the applicant of its intention to issue a denial. Such notice shall include a statement of reasons for the proposed denial, and shall offer the applicant an opportunity to present, within thirty (30) days of receipt of the notice, additional information or argument to the Department. The Department shall make a final determination on the request within thirty (30) days after receiving any additional information or argument. If no additional information or argument is submitted by the applicant, the application shall be denied.

(b) If the Department proposes to grant a variance request submitted pursuant to paragraph 6.12, it shall notify the applicant of its decision in writing. Such notice shall identify the variance, the facility covered, and shall specify the period of time for which the variance will be effective.

(1) For the type of variance specified in paragraph 6.11 (a), such notice shall provide that the variance will be terminated when the system comes into compliance with the applicable regulation, and may be terminated upon finding by the Department that the system has failed to comply with any requirements of a final schedule pursuant to the terms and conditions of the variance.

(2) For the type of variance specified in paragraph 6.11 (b), such notice shall provide that the variance may be terminated at any time upon a finding that the nature of the raw water is such that the specified treatment technique for which the variance was granted is necessary to protect the health of persons or upon a finding that the public water system has failed to comply with monitoring and other requirements prescribed by the Department as a condition of the granting of the variance.

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(c) For a variance specified in paragraph 6.11 (a). (1), the Department shall propose a schedule for:

(1) Compliance (including increments of progress) by the public water system with each contaminant level requirement covered by the variance; and,

(2) Implementation by the public water system of such control measures as the Department may require for each contaminant covered by the variance.

(d) The proposed schedule for compliance shall specify dates by which steps towards compliance are to be taken, including at the minimum, where applicable:

(1) Date by which arrangement for an alternative raw water source will be completed;

(2) Date of initiation of the connection for the alternative raw water source or improvement of the existing raw water source; and,

(3) Date by which final compliance is to be achieved.

(e) The proposed schedule may, if the public water system has no access to an alternative raw water source, and can effect or anticipate no adequate improvement of the existing raw water source, specify an indefinite time period for compliance until a new and effective treatment technology is developed at which time a new compliance schedule shall be prescribed by the Department.

(f) The proposed schedule for implementation of interim control measures during the period of variance shall specify interim treatment techniques, methods and equipment and dates by which steps towards meeting the interim control measures are to be met.

(g) The schedule shall be prescribed by the Department within one (1) year after the granting of the variance, subse-, quent to provision of opportunity for hearing pursuant to paragraph 6.15.

6.15 <u>Public Hearing on Variance and Schedules and Final</u> Action

(a) Before a variance or a schedule pursuant to paragraph 6.14 may take effect, the Department shall provide notice and opportunity for public hearing on the variance or schedule. A notice given pursuant to the preceding sentence may cover more than one (1) such variance or schedule and a hearing held pursuant to such notice shall include each of the variances covered by the notice.

(b) Public notice of a proposed variance or schedule and opportunity for public hearing on such shall be circulated in a manner designed to inform interested and potentially interested persons of the proposed variance. The public notice shall be posted at the principal post office which serves the area of the public water supply system and shall be announced over the radio or television station serving the area of the public water supply system. Requests for hearing may be submitted by any interested person. Frivolous insubstantial requests for hearing may be denied by the Department. Requests must be submitted to the Department within thirty (30) days after issuance of the public notice mentioned above.

Hearing requests shall include the following information:

(1) The name, address and telephone number of the individual, organization or other entity requesting a hearing:

(2) A brief statement of the interest of the person making the request in the proposed variance or schedule and of information that the requesting person intends to submit at such hearing; and,

(3) The signature of the individual making the request, or, if the request is made on behalf of an organization or other entity, the signature of responsible official of the organization or other entity.

(c) The department shall give notice in the manner set forth in paragraph (b) of this section of any hearing to be held pursuant to a request submitted by any interested person or Department motion. Notice of the hearing shall also be sent to the person requesting the hearing, if any. Notice of the hearing shall include a statement of the purpose, information regarding the time and location for the hearing, and the address and telephone number of an office at which interested persons may obtain further information concerning the hearing. The hearing location specified in the public notice shall be within an involved district. Notice of the hearing shall be given not less than fifteen (15) days before the time schedule for the hearing.

(d) A hearing conducted pursuant to paragraph (c) of this section shall be conducted before the Department. The Department shall have the authority to call witnesses, receive written and oral testimony, compel necessary attendance through subpoena, and take such action as may be necessary to assure the fair and efficient conduct of the hearing.

(e) Final Action. Within thirty (30) days after termination of the public hearing process prescribed above, the Department shall, taking into consideration information obtained during the hearing and other relevant information, grant, deny, or grant as modified a proposed variance or schedule. The variance or schedule shall become effective after notice of opportunity for hearing is given pursuant to paragraph 6.15 (b) if no timely request for hearing is submitted and the Department does not hold a public hearing on its own motion. 6.16 Alternative Treatment Techniques. The Department may grant a variance from any treatment technique requirement of these regulations to a supplier of water, upon a showing from any person that an alternative treatment technique not included in such requirement is at least as efficient in lowering the level of the contaminant with respect to which such requirement was prescribed. A variance under this paragraph shall be conditioned on the use of the alternative treatment technique which is the basis of the variance.

PART 7 EXEMPTIONS

7.1 <u>Requirements for an Exemption</u>. The Department may exempt any public water system from any requirement respecting a maximum contaminant level or any treatment technique requirement, or from both, of these regulations upon a finding that:

(a) Due to compelling factors (which may include economic factors), the public water system is unable to comply with such contaminant level or treatment technique requirement;

(b) The public water system was in operation on the effective date of such contamination level or treatment technique requirement; and,

(c) The granting of the exemption will not result in an unreasonable risk to health.

(d) Each exemption granted a public water system by the Department shall be conditioned by the Department upon compliance by the public water system with the schedule prescribed by the Department pursuant to 7.1(d). The requirement of each schedule prescribed by the Department pursuant to 7.1(d) shall be enforceable by the Department under Commonwealth law. Any requirement of a schedule on which an exemption granted under 7.1 is conditioned may be enforced under Section 1414 of U.S. P.L. 93-523 as if such requirement was part of a national primary drinking water regulation.

(e) A schedule prescribed pursuant to 7.1(d) for a public water system granted an exemption under 7.1(a)-(b) shall require compliance by the system with each contaminant level and treatment technique with respect to which the exemption was granted prior to January 1, 1984.

7.2 Exemption Request. A supplier of water may request the granting of an exemption pursuant to this subpart for a public water system by submitting a request for exemption in writing to the Department. Suppliers of water may submit a joint request for exemptions when they seek similar exemptions under similar circumstances. Any written request for an exemption shall include the following information: (a) The nature and duration of exemption requested;

(b) Relevant analytical results of water quality sampling of the system, including results of relevant tests conducted pursuant to the requirements of these regulations;

(c) Explanation of the compelling factors such as time or economic factors which prevent such system from achieving compliance;

(d) Other information, if any, believed by the applicant to be pertinent to the application;

(e) A proposed compliance schedule, including the date when each step toward compliance will be achieved; or, \cdot

(f) Such other information as the Department may require.

7.3 Consideration of an Exemption Request

(a) The Department shall act on any exemption request submitted pursuant to paragraph 7.2 within ninety (90) days of receipt of the request.

(b) In its consideration of whether the public water system is unable to comply due to compelling factors, the Department shall consider such factors as the following:

(1) Construction, installation, or modification of treatment equipment or systems;

(2) The time needed to put into operation a new treatment facility to replace an existing system which is not in compliance; and,

(3) Economic feasibility of compliance.

7.4 Disposition of an Exemption Request

(a) If the Department decides to deny the application for an exemption, it shall notify the applicant of its intention to issue a denial. Such notice shall include a statement of reasons for the proposed denial, and shall offer the applicant an opportunity to present, within thirty (30) days after receiving such notice, additional information or argument. If no additional information or argument is submitted by the applicant, the application shall be denied.

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(b) If the Department grants an exemption request, it shall notify the applicant of its decision in writing. Such notice shall identify the facility covered, and shall specify the termination date of the exemption. Such notice shall provide that the exemption will be terminated when the system comes into compliance with the applicable regulation, and may be terminated upon finding by the Department that the system has failed to comply with any requirements of a final schedule issued pursuant to paragraph 7.6.

(c) The Department shall propose a schedule for:

(1) Compliance (including increments of progress) by the public water system with each contaminant level requirement and treatment requirement covered by the exemption; and,

(2) Implementation by the public water system of such control measures as the Department may require for each contaminant covered by the exemption.

(d) The schedule shall be prescribed by the Department within one (1) year after the granting of the exemption, subsequent to provision of opportunity for hearing pursuant to paragraph 7.5.

7.5 Public Hearings on Exemption Schedules

(a) Before a schedule proposed by the Department pursuant to paragraph 7.4 (d) may take effect, the Department shall provide notice and opportunity for public hearing on the schedule. A notice given pursuant to the preceding sentence may cover the proposal of more than one such schedule and a hearing held pursuant to such notice shall include each of the schedules covered by the notice.

(b) Public notice of a proposed exemption and opportunity for public hearing on an exemption schedule shall be circulated in a manner designed to inform interested and potentially interested persons of the proposed schedule. The public notice shall be posted at the principal post office which serves the area of the public water supply system and shall be announced over the radio or television station serving the area of the public water supply system. Requests for hearing may be submitted by any interested person. Frivolous or insubstantial requests for hearing may be denied by the Department. Requests may be submitted to the Department within thirty (30) days after issuance date of the public notices mentioned above. Hearing requests shall include the following information:

(1) The name, address and telephone number of the individual, organization or other entity requesting a hearing;

(2) A brief statement of the interest of the person making the request in the proposed schedule and of information that the requesting person intends to submit at such hearing; and, (3) The signature of the individual making the request, or, if the request is made on behalf of an organization or other entity, the signature of a responsible official of the organization or other entity.

(c) The Department shall give notice in the manner set forth in paragraph (b) of this section of any hearing to be held pursuant to a request by an interested person or on the Department's motion. Notice of the hearing shall also be sent to the person requesting the hearing, if any. Notice of the hearing shall include a statement of the purpose, information regarding the time and location for the hearing, and the address and telephone number of an office at which interested persons may obtain further information concerning the hearing. The hearing location specified in the public notice shall be within the involved district. Notice of the hearing shall be given not less than five (5) days prior to the time scheduled for the hearing.

(d) A hearing convened pursuant to paragraph (c) of this section shall be conducted before the Department. The Department shall have the authority to call witnesses, receive written and oral testimony and take such action as may be necessary to assure the efficient and fair conduct of the hearing.

7.6 Final Schedule

(a) Within thirty (30) days after the termination of the public hearing pursuant to paragraph 7.5, the Department shall take into consideration information obtained during such hearing, revise the proposed schedule as necessary and prescribe the final schedule for compliance and interim measures for the public water system granted an exemption under paragraph 7.3.

(b) Such schedule shall require compliance by the public water system with each contaminant level and treatment technique requirement prescribed by:

(1) Drinking water standards pursuant to Part 5 of these regulations by no later than January 1, 1984; and,

(2) These regulations as they may be revised by not later than seven (7) years after their revision.

(c) If the public water system has entered into an enforceable agreement to become part of a regional public water system as determined by the Department, such schedule shall require compliance by the water system with each contaminant level and treatment technique requirement prescribed by:

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(1) Drinking water standards prescribed in Part 5 of these regulations by no later than the effective date of this regulation; and,

(2) These regulations as they may be revised not later than nine (9) years after their revision.

PART 8 SUPPLY OF DRINKING WATER DURING EMERGENCIES

8.1 Three (3) types of emergencies are recognized with respect to water supply systems:

(a) Non-potability by reason of the presence of toxic or other substances in the supply which cannot be removed by existing treatment methods and which, if ingested, might be injurious to the health of consumers. Presence of such substances which might be identified by such parameters as odor, taste, color, chemical tests, the presence of extensive fish kills in the water source, or by other evidence.

(1) In this case, the supplier of water will immediately close off the supply to distribution, notify the Department and the water consumers by the quickest available means of communication. The supplier will also:

(I) Deliver disinfected water from other suitable sources to such public consumers as hospitals, clinics and similar institutions. The water so delivered shall be disinfected to the satisfaction of the Department.

(II) Take appropriate steps under the supervision of the Department to properly identify the nature and source of the pollutant.

(III) Advise individual consumers to find other emergency sources of water until notified by the Department that the public water supply is potable.

(IV) Advise individual consumers to disinfect their emergency water supply by either boiling at a rolling boil for one (1) minute or more, or adding one (1) teaspoon of near 5% strength sodium hypoclorite solution (Clorox, Purex, etc.) to five (5) gallons of clear odorless water, stir and letting it set thirty (30) minutes before using, or as may be prescribed by the Department.

(2) In this type of emergency, the Office of the Mayor of each municipality is the local authorized representative of the Department. It will, in case of this type of emergency:

(I) Notify the Department of the emergency;

(II) Supervise the operations described in paragraph (1); and,

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(III) Document circumstances surrounding the contamination including its cause and identification of any person(s) implicated in such contamination.

(3) Person(s) who, either willfully or by negligence, contaminate public water supplies with toxic or poisonous materials which are not removable by normal treatment methods in use by the system, are subject to criminal prosecution as well as the penalty prescribed under paragraph 9.2 of these regulations. The fine under paragraph 9.2 shall be for the number of days the public water supply remains contaminated or the number of days between the time of contamination and the time the Department declares the water supply potable again.

(b) Non-potability by reason of the inactivation of the system due to major mechanical failure, typhoon, earthquake or similar disaster.

(1) In this case, the supplier will notify the Department and the water consumers by the quickest available means of communication. The supplier will also:

(I) Deliver disinfected water from suitable sources to such public consumers as hospitals, clinics and similar institutions. The water so delivered shall be disinfected to the satisfaction of the Department.

(II) Advise consumers as to where potable water from the plant or system may be obtained if such is obtainable.

(III) If potable water is not available from the system, the supplier will advise the consumers by the fastest available media where other water sources may be found in the immediate vicinity. Supplier will also recommend disinfection as prescribed in paragraph 8.1 (a)(1)(IV) hereinbefore. The supplier shall keep on hand sufficient disinfectant (sodium or calcium hypochlorite) for use of consumers during emergency who may not have access to such disinfectants.

(2) The Office of the Mayor for each municipality in this type of emergency will:

(I) Notify the Department of the emergency; and

(II) Supervise the operation hereinbefore described under paragraph (2).

(c) Non-potability of water supply by reason of the necessity to ration water by emptying mains and distribution lines daily or more frequently:

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(1) In this type of emergency, the system is assumed to be contaminated by infiltration of surface waters and the supply does not, therefore, meet the standard bacteriological quality prescribed in paragraph 5.3 of these regulations. The Department and the public shall, therefore, be notified by the supplier as prescribed in paragraphs 5.82 and 5.83 during the entire period of emergency rationing.

(2) The Department will supervise the action prescribed in paragraph (c) (1).

PART 9 ENFORCEMENT

9.1 The Department, acting through the Commonwealth Attorney General, is responsible for enforcement of these regulations in consonance with, and in accordance with the applicable laws of the CNMI and in accordance with U.S. P.L. 93-523, known as the "Safe Drinking Water Act". The Attorney General will institute legal actions to enjoin a violation, continuing violation or threatened violation of these regulations.

9.2 Penalties

(a) Any person who violates any provision of these regulations or any certificates, standard or order issued by the Department or any agency charged with responsibilities pursuant to these shall be subject to a civil penalty not to exceed ten thousand dollars (\$10,000) for each day of each such violation.

(b) Upon request of the Department, the Commonwealth Attorney General shall petition the Commonwealth Trial Court or the United States District Court for the Northern Mariana Islands for a judgment assessing damages arising from a violation of these regulations or of any certification, certification condition, standard, or order of the Department or any agency charged with responsibilities pursuant to these regulations. In determining such damages, if any, the court having jurisdiction of the matter shall consider the magnitude of harm caused by the violation, the nature and persistence of the violation, the length of time during which the violation has occurred and any corrective or ameliorative action or circumstances on the part of the person or persons against whom the damages are to be assessed.

(c) Any person who willfully or negligently violates any provision of these regulations, or of any certification, certification condition, standard or order of the Department or any agency charged with responsibilities pursuant to these regulations, shall be subject to criminal prosecution and upon conviction shall be punished by a fine of not less than one hundred dollars (\$100.00) nor more than twenty five thousand dollars (\$25,000) for each

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violation or by imprisonment not exceeding three (3) months, or both. Upon subsequent convictions for violations of these regulations any such person shall be punished by a fine of not less than five hundred dollars (\$500.00) nor more than fifty thousand dollars (\$50,000) for each day of violation or by imprisonment not exceeding six (6) months, or both.

(d) Any person who knowingly makes any false statement, representation, or certification in any application, records, report, plan or other document filed or required to be maintained under these regulations, or by any certification, or order issued under these regulations, or who falsifies, tampers with or knowingly renders inaccurate any monetary device or method required to be maintained pursuant to these regulations or any certification or order of the Department pursuant to these regulations shall be subject to criminal prosecution and upon conviction shall be punished by a fine of not more than ten thousand dollars (\$10,000) or by imprisonment for not more than six (6) months, or both.

(e) All sums received as fines pursuant to this section and all permit fees collected pursuant to these regulations shall be paid to the treasurer of the Commonwealth for credit to the general fund of the Commonwealth.

PART 10 CERTIFICATION

The undersigned hereby certifies that these regulations have been officially promulgated and adopted as final regulations pursuant to the authority contained in the Commonwealth of the Northern Marianas Public Law 1-8.

Prave

Dr. Jose T. Villagomez Director, Public Health and Environmental Services

Date