Chapter 04

SAFE DRINKING WATER

Sections:

I. Wells

25.0401 Definitions.

The following definitions apply in this article:

(a) " Annular space" means the space between any 2 casings or between the outer casing and the walls of the hole.

(b) "Casing" means the tubular material utilized to shut off strata above the source bed and conduct water from the source bed to the surface.

(c) "Pollution" means any matter which renders water objectionable or dangerous to health.

(d) "Source bed" means the stratum or strata from which water is drawn in the well.

(e) "Well" means any artificial opening in the ground designed to conduct water from a source bed to the surface when water from such well as used for public, semipublic, or private consumption.

History: Pub. Health Reg. 6, eff 8 Sep 64, § 1.

25.0402 Location.

(a) Well sites shall be on ground not subject to ponding or flooding. In general, the slope of the ground surface in the vicinity of the well site shall be away from the well, if practical. For level areas, well-tamped or puddled earth shall be placed around the well so as to elevate the platform or apron.

(b) As far as is practical, when the direction of ground water slope or movement is known, wells shall be located on the upstream side of possible sources of pollution and as far from these sources as practical.

(c) Every well shall be accessible for such attention and inspection as may be necessary.

History: Pub. Health Reg. 6, eff 8 Sep 64, § 2.

25.0403 Casing-Rotary-method annular-space sealing.

(a) In wells in which the casing is driven it shall be of the type known as drive pipe, and shall be equipped with couplings allowing for butt joints between lengths of casing. For wells in which the casing is not driven, "merchant casing", standard pipe, or pipe especially

constructed for gravel-wall wells will be acceptable. Either black or galvanized pipe shall be acceptable. Any other pipe proposed shall be either approved by the director of health or the architect-planner.

(b) Where telescoped casing is utilized, an approved water-tight seal shall be made where increases or reductions occur in casing size. If proper seals are not made, the inner casing should extend the entire cased depth.

(c) Wells drilled by rotary method shall have the annular space sealed by the use of a neat cement grout at the bottom of the hole and to the surface by neat cement mud, clay, or other approved material.

History: Pub. Health Reg. 6, eff 8 Sep 64, § 3.

25.0404 Surface seal.

The top of the casing shall be so constructed as to exclude any influent.

History: Pub. Health Reg. 6, eff 8 Sep 64, § 4.

25.0405 Pump pits.

Where a pump pit is planned it must be provided with a sump pump or other means for keeping the pit completely drained at all times. At the discretion of the director of health and the architect-planner, 2 sump pumps may be required to guard against flooding in the event that 1 pump fails.

History: Pub. Health Reg. 6, eff 8 Sep 64 § 5.

25.0406 Housing well and pump.

Both well and pump shall be protected by a housing of adequate size, having an impervious floor and weatherproof walls and roof.

History: Pub. Health Reg. 6, eff 8 Sep 64, § 6.

25.0407 Casing top-drop pipe connection

A watertight connection shall be made between the outside casing top and the drop pipe or discharge column.

History: Pub. Health Reg. 6, eff 8 Sep 64, § 7.

25.0408 Vent protection.

Where provided, well vents shall be adequately protected.

History: Pub. Health Reg. 6, eff 8 Sep 64, § 8.

25.0409 Sampling tap.

A conveniently accessible, down-opening sampling tap shall be provided on the discharge side of each well pump, so that samples of raw water may be obtained from the well.

History: Pub. Health Reg. 6, eff 8 Sep 64, § 9.

25.0410 Opening for access-Sterilization-Analysis.

Every well shall be equipped with an opening which will allow introduction of sterilizing agents and measurement of static water level, draw-down, or artesian pressure. Before a new well, or one which has been repaired, is placed in use it shall be sterilized in accordance with the method approved by the director of health, and pumped clear of sterilizing agent. Samples of raw water from the well must be submitted to the sanitation laboratory of the department of health for bacterial analysis. Use of the well will not be allowed until satisfactory results are obtained from analysis.

History: Pub. Health Reg. 6. eff 8 Sep 64, § 10.

25.0411 Abandonment-Plugging.

Wells no longer in use shall be plugged in a manner approved by the director of health and the architect-planner. Capping the casing top is insufficient.

History: Pub. Health Reg. 6. eff 8 Sep 64, § 11.

25.0412 Protection during construction.

Prior to the placing of pumps, wells under construction shall be protected at all times so as to prevent entrance of contaminating material.

History: Pub. Health Reg. 6. eff 8 Sep 64, § 12.

25.0413 Infiltration galleries and dug wells.

Dug wells, infiltration galleries, and other such sources of water supply requiring rearrangement of natural features are prohibited as a source of public or semipublic water supply unless the water is treated in a manner approved by the director of health and the architect planner.

History: Pub. Health Reg. 6. eff 8 Sep 64, § 13.

25.0414 Explosives for construction.

The use of dynamite or other explosives in the construction of maintenance of wells is prohibited.

History: Pub. Health Reg. 6. eff 8 Sep 64, § 14.

25.0415 Air supply for air-lift wells.

If water from air-lift wells is not treated subsequently, the air supply utilized shall be protected from contaminating influences by an approved method.

History: Pub. Health Reg. 6, eff. 8 Sep 64, § 15.

25.0416 Application for approval- Required before construction.

Before entering into a contract or starting construction for the use of a water-supply well, it shall be the responsibility of the well-dri1ling contractor of the owner to make application to the director of health and the architect-planner. Drilling shall not begin until the proposed construction is approved in a written permit signed by the director of health and the architect-planner.

History: Pub. Health Reg. 6, eff. 8 Sep 64, § 16.

25.0417 Application for approval- Data to accompany.

The application, shall be accompanied by the following data :

(1) Type, casing, material, diameter, proposed type of casing seat, required yield, and detailed drawings of pump installation;

(2) A plat showing the location of the proposed well relative to existing physical features. The location of known possible sources of contamination must be shown;

(3) Additional data as may be required by the director of health and the architect-planner.

History: Pub. Health Reg. 6.6, eff. 8 Sep 64, § 17.

25.0418 Violation-Penalty.

Any person who violates this article is guilty of a class C misdemeanor and shall, upon conviction, be sentenced accordingly, as provided by 25.0110 ASCA.

History: Pub. Health Reg. 6, eff. 8 Sep 64, § 18.

II. Rules

Prior History: Rule 1-81, eff 16 Feb 81.

25.0420 Authority.

This article establishes primary drinking water rules pursuant to § 1412 of the Public Health Service Act, as amended by the Safe Drinking Water Act (93-523,95-190, 96-63, and 96-502); and adopted by the ASG.

History: Rule 9-81, eff 13 Ju181, § 2(141.1).

25.0421 Definitions.

As used in this article, the term:

(1) "act" means the Public Health Service Act, as amended by the Safe Drinking Water Act, 93-523 and 95-190 and any amendments thereto;

(2) "contaminant" means any physical, chemical, biological, or radiological substance or matter in water;

(3) "disinfectant" means any oxidant, including but not limited to chlorine, chlorine dioxide, chloramines, and ozone added to water in any part of the treatment or distribution process, that is intended to kill or inactivate pathogenic microorganisms;

(4) "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 by the International Commission on Radiological Units and Measurements (ICRU);

(5) "gross alpha-particle activity" means the total radioactivity due to alpha-particle emission as inferred from measurements on a dry sample;

(6) "gross beta-particle activity" means the total radioactivity due to beta-particle emission as inferred from measurements on a dry sample;

(7) "halogen" means I of the chemical elements chlorine, bromine, or iodine;

(8) "manmade 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 service thorium-232, uranium-235, and uranium-238;

(9) "maximum contaminant level" means the maximum permissible level of a contaminant in water which is delivered to the free-flowing outlet of the ultimate user of a public water system, except in the case of turbidity where the maximum permissable 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;

(10) "maximum total trihalomethane potential" (MTP) means the maximum concentration of total trihalomethanes produced in a given water containing a disinfectant residual after 7 days at a temperature of 25 degrees Celsius or above;

(11) "person" means an individual, corporation, company, state, association, partnership, territory, municipality, village, or federal agency;

(12) "picocure" (pCi) mens that quantity of radioactive material producing 22.22 nuclear transformations per minute;

(13) "public water system" means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Such term includes:

(A) any collection, treatment, storage and distribution facilities under control of the operator of such system and used primarily in connection with such system; and

(B) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system.

A public waster system is either a "community water system" or a "non-community water system":

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

(II) "Noncommunity water system" means a public water system that is not a community water system;

(14) "Rem" means the unit of 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;

(15) "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;

(16) "standard sample" means the aliquot of finished drinking water that is examined for the presence of coliform bacteria;

(17) "state" means the ASG, which has jurisdiction over public water systems. During any period when the state does not have primary enforcement responsibility pursuant to § 1413 of the act, "state" also means the Regional Administrator, U.S. Environmental Protection Agency;

(18) "supplier of water" means any person who owns or operates a public water system;

(19) "total trihalomethanes" (TTHM) means the sum of the concentration in milligrams per liter of the trihalomethane compounds [trichloromethane (chloroform), dibromochloromethane, bromodichloromethane, and tribromomethane (bromoform)], rounded to 2 significant figures;

(20) "trihalomethane" (THM) means 1 of the family of organic compounds, named as derivatives of methane, wherein 3 of the 4 hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.

History: Rule 9-81, eff 13 Jul 81, § 2(141.2); and Rule 7-88, eff 27 Nov 88, § 3.

25.0422 Applicability.

This article shall apply to each public water system unless the public water system meets all of the following conditions:

(1) Consists only of distribution and storage facilities (and does not have any collection and treatment facilities);

(2) Obtains all of its water from, but is not owned or operated by, a public water system to which such rules apply;

(3) Does not sell water to any person;

(4) Is not a carrier which conveys passengers in interstate commerce.

History: Rule 9-81, eff 13 Ju1 81, § 2(141.3).

25.0423 Variance and exemption authority.

Variances or exemptions from certain provisions of this chapter may be granted pursuant to §§ 1415 and 1416 of the act by the entity with primary enforcement responsibility.

History: Rule 9-81, eff 13 Ju1 81, § 2(141.4).

25.0424 Site of water systems.

(a) Before a person may enter into a financial commitment for or initiate construction of a new public water system or increase the capacity of an existing public water system he shall notify the state and, to the extent practicable, avoid locating part or all of the new or expanded facility at a site which:

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

(2) 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.

(b) The U.S. Environmental Protection Agency will not seek to override land-use decisions affecting public water system sitings which are made at the state or local government levels.

History: Rule 9-81, eff 13 Ju181, § 2(141.5).

25.0425 Effective date.

(a) Except as provided in subsection (b) of this section, the rules set forth in this article shall take effect 30 days after adoption.

(b) The rules for total trihalomethanes set forth in 25.0427 shall take effect 2 years after the date of promulgation of these rules for community water systems serving 75,000 or more individuals, and 4 years after the date of promulgation for communities serving 10,000 to 74,999 individuals.

History: Rule 9-81, eff 13 Ju1 81, § 2(141.6).

25.0426 Maximum levels-Inorganic chemicals.

(a) The maximum contaminant level for nitrate is applicable to both community water systems and noncommunity water systems. The levels for other inorganic chemicals apply only to community water systems. Compliance with maximum contaminant levels for inorganic chemicals is calculated pursuant to 25.0434.

(b) The following are the maximum contaminant levels of inorganic chemicals other than fluoride:

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.**

(c) When the annual average of the maximum daily air temperature for the location in which the community water system is situated is the following, the maximum contaminant levels for fluoride are:

Temperature (Degrees Fahrenheit)	Degrees Celsius	Level (milligrams per liter)
63.9 to 70.6	17.7 to 21.4	1.8
70.7 to 79.2	21.5 to 26.2	1.6
79.3 to 90.5	26.3 to 32.5	1.4

History: Rule 9-81, eff 13 Jul 81, § 2(141.11).

25.0427 Maximum levels-Organic chemicals.

The following are the maximum contaminant levels for organic chemicals. The maximum contaminant levels for organic chemicals in subsections (a) and (b) of this section apply to all community water systems. Compliance with the maximum contaminant levels in subsections (a) and (b) is calculated pursuant to 25.0435. The maximum containment level for total trihalomethanes in subsection (c) of this section applies only to community water systems which serve a population of 10,000 or more individuals and which add a disinfectant

(oxidant) to the water in any part of the drinking water treatment process. Compliance with the maximum contaminant level for total trihalomethanes is calculated pursuant to 25.0436.

	Contaminants	Level (milligrams per liter)
(a)	Chlorinated Hydorcarbons	
	(1) Endrin (1, 2, 3, 4, 10, 10-hexachloro-6, 7-epoxy-1, 4, 4A, 5, 6, 7, 8, 8A-octa hydro-1, 4-endo, endo-5, 8-dimethanonaphthalene)	0.0002
	(2) Lindane (1, 2, 3, 4, 5, 6-hexachlorocyclohexane, gamma isomer)	0.004
	(3) Methoxychlor (1, 1, 1-Trichloroethane). 2, 2-bis (p-methoxyphenyl)	0.1
	(4) Toxaphene (C10H8C18, technical chlorinated camphene, 67-69% chlorine)	0.005
(b)	Chlorophenoxys.	
	(1) 2, 4-D (2, 4-dichlorophenoxyacetic acid)	0.1
	(2) 2, 4, 5-TP Silvex (2, 4, 5-Trichlorophenoxypropionic acid)	0.01
(c)	Total trihalomethanes (the sum of the concentrations of bromodichloromethane, dibromochloromethane, tribromomethane (bromofrom) and trichloromethane (chloroform)	0.10
(d)	Volatile Organic Compounds	

(1) benzene	0.005
(2) carbon tetrachloride	0.005
(3) 1, 2-dichloroethane	0.005
(4) Trichloroethylene	0.075
(5) Para-dichlorobenzene	0.007
(6) 1, 1-dichloroethylene	0.20
(7) 1, 1, 1-trichloroethane	0.002.
(8) vinyl chloride	

History: Rule 9-81, eff 13 Jul 81, § 2(141.12); and Rule 7-88, eff 27 Nov 88, § 1.

25.0428 Maximum levels- Turbidity.

The maximum contaminant levels for turbidity are applicable to both community water systems and noncommunity 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:

(1) one turbidity unit (TU), as determined by a monthly average pursuant to 25.0433, except that 5 or fewer turbidity units may be allowed if ASG determines that the higher turbidity does not do any of the following:

(A) Interfere with disinfection;

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

(C) Interfere with microbiological determinations;

(2) five turbidity units based on an average for 2 consecutive days pursuant to 25.0433.

History: Rule 9-81, eff 13 Ju181, § 2(141.13).

25.0429 Maximum levels-Microbiological contaminant.

The maximum contaminant levels for coliform bacteria, applicable to community water systems and noncommunity water systems, are as follows:

(a) When the membrane-filter technique pursuant to 25.0432(a) is used, the number of coliform bacteria shall not exceed any of the following:

(1) One per l00 milliliters as the arithmetic mean of all samples examined per month pursuant to 25.0432 (b) or (c);

(2) Four per 100 milliliters in more than 1 sample when less than 20 are examined per month; or
(3) Four per 100 milliliters in more than 5% of the samples when 20 or more are examined per month.

(b) When the fermentation tube method and 10-milliliter standard portions pursuant to 25.0432(a) are used, coliform bacteria shall not be present in any of the following:

(A) More than 10% of the portions in any month pursuant to 25.0432(b) or (c); and

(B) Three or more portions in more than 1 sample when less than 20 samples are examined per month; or

(C) Three or more portions in more than 5% of the samples when 20 or more samples are examined per month.

(2) When the fermentation tube method and 100-milliliter standard portions pursuant to 25.0432(a) are used, coliform bacteria shall not be present in any of the following:

(A) More than 60% of the portions in any month pursuant to 25.0432(b) or (c);

(B) Five portions in more than 1 sample when less than 5 samples are examined per month, or

(C) Five portions in more than 20% of the samples when 5 or more samples are examined per month.

(c) For community or. noncommunity systems that are required to sample at a rate of less than 4 per month, compliance with subsection (a) and paragraphs (b)(1) or (b)(2) of this section shall be based upon sampling during a 3-month period, except that, at the discretion of the state, compliance may be based upon sampling during a 1-month period.

History: Rule 9-81, eff 13 Ju181, § 2(141.14).

25.0430 Maximum- Radioactivity-Water concentration.

The following are the maximum contaminant levels for radium-226, radium-228, and gross alpha-particle radioactivity:

(a) Combined radium-226 and radium-228: 5;

(b) Gross alpha-particle activity (including radium-226 but excluding radon and uranium): 15 picocuries per liter.

History: Rule 9-81, eff 13 Ju181, § 2(141.5).

25.0431 Maximum- Radioactivity -Body and organ concentration.

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

(b) Except for the radionuclides listed in Table A, the concentration of manmade radionuclides causing 4-millirem total body or organ dose equivalents 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 Aug 63, U.S. Department of Commerce. If 2 or more radioriuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed 4 millirems per year.

TABLE A

AVERAGE ANNUAL CONCENTRATION ASSUMED TO PRODUCE A

TOTAL BODY OR ORGAN DOSE OF FOUR MREM PER YEAR

Radionuclide	Critical Organ	pCi Per Liter
Tritium	Total body	20,000
Strontium-90	Bone marrow	8.

History: Rule 9-81, eff 13 Ju181, § 2(141.16).

25.0431.1 Lead content in pipes, solder, and flux.

Solder and flux containing more than 0.2 percent lead, and pipes and pipe fittings containing more than 8.0 percent lead is prohibited for the installation or repair of any public water system or any plumbing in a residential or nonresidential facility providing water for human consumption which is connected to a public water system.

History: Rule 6-88, eff 27 Nov 88, § 1.

25.0432 Sampling and analysis- Microbiological contaminant.

(a) The state shall analyze for coliform bacteria for community water systems and non-community water systems for the purpose of determining compliance with 25.0429. Analyses shall be conducted in accordance with the analytical recommendations set forth in "Standard Methods for the Examination of Water and Wastewater", American Public Health Association, 13th Edition, pp. 662-688, except that a standard sample size shall be employed. Such sampling shall begin immediately after 13 Jul 81. The standard sample used in the membrane-filter procedure shall be 100 millimeters. The standard sample used in the five-tube, most-probable-number (MPN) procedure (fermentation-tube method) shall be 5 times the standard portion. The standard portion is either 10 millimeters or 100 millimeters as described in 25.0429(b) and (c). The samples shall be taken at points which are representative of the conditions within the distribution system.

(b)(1) The state shall take coliform density. samples at regular time intervals for community water systems and in numbers proportionate to the population served by the system. In no event shall the frequency be less than as set forth below:

Population Served	Minimum Number of Samples Per Month
25 to 1,000	1
1,001 to 2,500	2
2,501 to 3,300	3
3,301 to 4,100	4

4,101 to 4,900	**5**
4,901 to 5,800	**6**
5,801 to 6,700	**7**
6,701 to 7,600	**8**
7,601 to 8,500	**9**
8,501 to 9,400	**10**
9,401 to 10,300	**11**
10,301 to 11,100	**12**
11,101 to 12,000	**13**
12,001 to 12,900	**14**
12,901 to 13,700	**15**
13,701 to 14,600	**16**
14,601 to 15,500	**17**
15,501 to 16,300	**18**
16,301 to 17,200	**19**
17,201 to 18,100	**20**
18,101 to 18900	**21**
18,901 to 19,800	**22**
19,801 to 20,700	**23**
20,701 to 21,500	**24**
21,501 to 22,300	**25**
22,301 to 23,200	**26**
23,201 to 24,000	**27**
24,001 to 24,900	**28**
24,901 to 25,000	**29**
25,001 to 28,000	**30**
28,001 to 33,000	**35**
33,001 to 37,000	**40**
37,001 to 41,000	**45**
41,001 to 46,000	**50**

(2) Based on a history of no coliform bacteria contamination and on a sanitary survey by the state showing the water system to be supplied solely by a protected groundwater source and free of sanitary defects, a community water system serving 25 to 1,000 persons, with written permission from the state, may reduce this sampling frequency except that in no case shall it be reduced to less than 1 per quarter.

(c) For noncommunity water systems, the state shall sample for coliform bacteria in each calendar quarter during which the system provides water to the public. Such sampling shall begin within 30 days after the effective date of this article. If the state, on the basis of a sanitary survey, determines that some other frequency is more appropriate, that frequency shall be the frequency required under this article. Such frequency shall be confirmed or changed on the basis of subsequent survey.

(d)(1) When the coliform bacteria in a single sample exceeds 4 per 100 milliliters (25.0429 (a)), at least 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 state, until the results obtained from at least 2 consecutive check samples show less than 1 coliform bacterium per 100 milliliters.

(2) When coliform bacteria occur in 3 or more 10-milliliter portions of a single sample (25.0429(b)(1)), at least 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 state, until the results obtained from at least 2 consecutive check samples show no positive tubes.

(3) When coliform bacteria occur in all 5 of the 100-milliliter portions of a single sample (25.0429)(b)(2)), at least 2 daily check samples shall be collected and examined from the same sampling point. Additional check samples shall be collected daily, o.r at a frequency established by the state, until the results obtained from at least 2 consecutive check samples show no positive tubes.

(4) The location at which the check samples were taken pursuant to paragraphs (d)(1), (2), or (3) of this section shall not be eliminated from future sampling without approval of the state. The results from all coliform bacterial analyses performed pursuant to this section through 25.0439, except those obtained from check samples and special purpose samples, shall be used to determine compliance with the maximum contaminant level for coliform bacteria as established in 25.0429. Check samples shall not be included in calculating the total number of samples taken each month to determine compliance with subsections (b) or (c) of this section.

(e) When a maximum contaminant level set forth in 25.0429 is exceeded, the state shall notify the public as prescribed in 25.0442 and 25.0443.

(f) 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 25.0429 or subsections (b) or (c) of this section.

(g) The state may substitute the use of chlorine residual monitoring for community water systems and noncommunity water systems for not more than 75% of the samples required to be taken by subsection (b) of this section, provided that such substitute monitoring is based on a sanitary survey and provided that the state takes chlorine residual samples at points which are representative of the conditions within the distribu tion system at the frequency of at least 4 for each substituted microbiological sample. There shall be at least daily determinations of chlorine residual. When the state exercises the option provided in this subsection, it shall maintain no less than 0.2 milligrams per liter of 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 milligrams per liter, the water at that location shall be retested as soon as practical; in any event, within 1 hour. If the original analysis is confirmed, the state will collect a sample for coliform bacterial analysis as soon as practical. Analyses for residual chlorine shall be made in accordance with "Standard Methods for the Examination of Waste and Wastewater", 13th Ed., pp. 129-132. Compliance with the maximum contaminant levels for coliform bacteria shall be determined on the monthly mean or quarterly mean basis specified in 25.0429, including those samples taken as a result of failure to maintain the required chlorine residual level.

History: Rule 9-81, eff 13 Ju1 81, § 2(141.21).

25.0433 Sampling and analysis-Turbidity.

(a) Samples shall be taken by the state 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 25.0428. The measurement made shall be the nephelometric method in accordance with the recommendations set forth in "Standard Methods for the Examination of Water and Wastewater", American Public Health Association, 13th Edition, pp. 350-353, or "Methods for Chemical Analysis of Water and Wastes", pp. 295-298, EPA, Office of Technology Transfer, Washington, D.C. 20460, 1974.

(b) If the result of a turbidity analysis indicates that the maximum allowable limit has been exceeded, the sampling and measurement shall be confirmed by resampling as soon as practical and preferably within 1 hour. 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 2 samples taken on consecutive days exceeds 5 turbidity units, the state shall notify the public as directed in 25.0442 and 25.0443.

(c) The requirements of this section shall apply only to public water systems which use water obtain~d in whole or in part from surface sources.

(d) Sampling for noncommunity water systems shall begin immediately after 13 J ul 81.

History: Rule 9-81, eff 13 Ju181, § 2(141.22).

25.0434 Sampling and analysis- Inorganic chemical.

(a) Samples shall be taken by the state. Analyses for the purpose of determining compliance with 25.0426 are required as follows:

(1) Initial sampling and analysis for all community water systems utilizing surface or a combination of surface and groundwater sources shall be completed no later than 13 Ju181. These analyses shall be repeated at yearly intervals.

(2) Initial sampling and analyses from all community water systems utilizing only ground-water sources shall be completed no later than 13 Jul 81. These analyses shall be repeated at 3-year intervals.

(3) For noncommunity water systems, whether supplied by surface or groundwater sources, initial sampling and analyses for nitrate shall be completed no later than 13 Jul 81. These analyses shall be repeated at intervals determined by the ASG.

(b) If the result of an analysis made pursuant to subsection (a) of this section indicates the level of any contaminant listed in 25.0426 exceeds the maximum contaminant level, the state shall initiate 3 additional analyses at the same sampling point within 1 month.

(c) When the average of 4 analyses made pursuant to subsection (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 state shall give notice to the public pursuant to 25.0443. Monitoring after public notification shall be at a frequency designated by the state and shall continue until the maximum contaminant level has not been exceeded in 2 successive samples or until a monitoring schedule, as a condition to a variance, exemption, or enforcement action, becomes effective.

(d) The provisions of subsections (b) and (c) of this section nowithstanding, compliance with the maximum contaminant level for nitrate shall be determined on the basis of the mean of 2 analyses. When a level exceeding the maximum contaminant level for nitrate is found, a second analysis shall be initiated within 24 hours, and if the mean of the 2 analyses exceeds the maxi- mum contaminant level, the state shall notify the public pursuant to 25.0443.

(e) For the initial analyses required by subsection (a) of this section, data for surface waters acquired within a l-year prior to the effective date and data for groundwater acquired within 3 years prior to 13 Jul 81 may be substituted at the discretion of the state.

(f) Analyses conducted to determine compliance with 25.0426 shall be made in accordance with the following methods:

(1) Arsenic: atomic absorption method, "Methods for Chemical Analysis of Water and Wastes", pp. 95-96, EPA, Office of Technology Transfer, Washington, D.C. 20460, 1974;

(2) Barium: atomic absorption method, "Standard Methods for the Examination of Water and Wastewater", 13th Edition, pp. 210-215 or "Methods for Chemical Analysis of Water and Wastes" pp. 97-98, EPA, Office of Technology Transfer, Washington, D.C. 20460, 1974;

(3) Cadmium: atomic absorption method, "Standard Methods for the Examination of Water and Wastewater", 13th Edition, pp. 210- 215 or "Methods for Chemical Analysis of Water and Wastes", pp. 105-106, EPA, Office of Technology Transfer, Washington, D.C. 20460, 1974;

(4) Chromium: atomic absorption method, "Standard Methods for the Examination of Waste and Wastewater", 13th Edition, pp. 210- 215 or "Methods for Chemical Analysis of Water and Wastes", pp. 105-106, EPA, Office of Technology Transfer, Washington, D.C.20460, 1974;

(5) Lead: atomic absorption method, "Standard Methods for the Examination of Water and Wastewater", 13th Edition, pp. 210-:215 or 112-113, or "Methods for Chemical Analysis of Water and Wastes", EPA, Office of Technology Transfer, Washington, D.C. 20460, 1974;

(6) Mercury: nameless atomic absorption method, "Methods for Chemical Analysis of Water and Wastes", pp. 118-126, EPA, Office of Technology Transfer, Washington, D.C. 20460,1974;

(7) Nitrate: Brucine colorimetric method, "Standard Methods for the Examination of Water and Wastewater", 13th Edition, pp. 461- 469 or cadmium reduction method, "Methods for Chemical Analysis of Water and Wastes", pp. 201-206, EPA, Office of Technology Transfer, Washington, D.C. 20460, 1974;

(8) Selenium: atomic absorption method, "Methods for Chemical Analysis of Water and Wastes", p. 145, EPA, Office of Technology Transfer, Washington, D.C. 20460, 1974;

(9) Silver: atomic absorption method, "Standard Methods for the Examination of Water and Wastewater", 13th Edition, pp. 210- 215 or "Methods for Chemical Analysis of Water and Wastes", p. 146, EPA, Office of Technology Transfer, Washington, D.C. 20460, 1974,

(10) Fluoride-electrode method, "Standard Methods for the Examination of Water and Wastewater", 13th Edition, pp. 172-174, or "Methods for Chemical Analysis of Water and Wastes", pp. 63-67, EPA, Office of Technology Transfer, Washington, D.C. 20460, 1974, or colorimetric method with preliminary distillation, "Standard Methods for the Examination of Water and Wastewater", 13th Edition, pp. 171-172 and 174-176, or "Methods for Chemical Analysis of Water and Wastes", pp. 59-60, EPA, Office of Technology Transfer, Washington, D.C. 20460, 1974.

History: Rule 9-81, eff 13 Jul 81, § 2(141.23).

25.0435 Sampling and analysis-Organic chemicals generally.

Samples shall be taken by the state.

(a) An analysis of substances for the purpose of determining compliance with 25.0427(a) and (b) shall be made as follows: For all community water sources, analyses shall be completed within 30 days following 13 Jul 81. Samples analyzed shall be collected during the period of the year designated by the state as the period when contamination by pesticides is likely to

occur. These analyses shall be repeated at intervals specified by the state but in no event less frequently than at 3-year intervals.

(b) If the result of an analysis made pursuant to subsection (a) of this section indicates that the level of any contaminant listed in 25.0427 (a) and (b) exceeds the maximum contaminant level, the supplier of water shall report to the state within 7 days and initiate 3 additional analyses within 1 month.

(c) When the average of 4 analyses made pursuant to subsection (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 certified laboratory shall report to the state pursuant to 25.0442 and the state shall give notice to the public pursuant to 25.0443. Monitoring after public notification shall be at a frequency designated by the state and shall continue until the maximum contaminant level has not been exceeded in 2 successive samples or until a monitoring schedule is enacted as a condition to a variance, exemption, or enforcement.

(d) For the initial analysis required by 'subsection (a) of this section, data for the surface water acquired within 1 year prior to 13 Ju181 and data for groundwater acquired within 3 years prior to 13 Jul 81 may be substituted at the discretion of the state.

(e) Analyses made to determine compliance with 25.0427(a) shall be made in accordance with "Method for Organochlorine Pesticides in Industrial Effluents", MDQARL, EPA, Cincinnati, Ohio, 28 Nov 73.

(f) Analyses made to determine compliance with 25.0427(b) shall be conducted in accordance with "Methods for Chlorinated Phenoxy Acid Herbicides in Industrial Effluents", MDQARL, EPA, Cincinnati, Ohio, 28 Nov 73.

(g) Analyses of substances for the purpose of determining compliance with 25.0427(d)(l)

through (7) shall be made as follows: For all community water sources, analysis shall begin by 1 Jan 88. Quarterly samples will be collected from each ground and surface water source; composite samples of up to five sources are allowed if the composites reflect operating characteristics. For groundwater sources, if the first quarterly sample does not detect volatile organic compounds, repeat sampling will be every 5 years. Detected is 0.005 mg/liter. If no volatile organic compounds are detected after quarterly sampling of surface water sources for one year, repeat sampling is unnecessary unless the source is deemed vulnerable.

(h) An analysis of substances for the purpose of determining compliance with 25.0427 (d)(8) shall be made according to subsection (g) above only for groundwater systems which detect any of the volatile organic compounds listed in 25.0427(d)(3), (4), (6) or (7).

(i) Analyses made to determine compliance with 25 .0427(d) shall be conducted in accordance with “Methods for Chemicals Analysis of Water and Wastes”, U.S. Environmental Protection Agency, Office of Technology Transfer, Washington, D.C. 20460, 1974.

History: Rule 9-81, eff 13 Ju1 81, § 2(141.24); and Rule 7-88, eff 27 Nov 88, § 2.

25.0436 Sampling and analysis-Total trihalomethanes.

(a) Community water systems which serve a population of 10,000 or more individuals and which add a disinfectant (oxidant) to the water in any part of the drinking water treatment process shall analyze for total trihalomethanes in accordance with this section. For systems serving 75,000 or more individuals, sampling and analysis shall begin not later than 1 year after 13 Jul 81. For systems serving 10,000 to 74,999 individuals, sampling and analysis shall begin not later than 3 years after 13 Jul 81. F or the purpose of this section, 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 state approval, be considered 1 treatment plant for determining the minimum number of samples. All samples taken within an established frequency shall be collected within a 24-hour period.

(b)(1) For all community water systems utilizing surface water sources in whole or in part, and for all community water systems utilizing only groundwater sources that have not been determined by the state to qualify for the monitoring requirements of subsection (c) of this section, analyses for total trihalomethanes shall be performed at quarterly intervals on at least 4 water samples for each treatment plant used by the system. At least 25% of the samples shall be taken at locations within the distribution system reflecting the maximum residence time of the water in the system. The remaining 75% shall be taken at representative locations in the distribution system, taking into account number of persons served, different sources of water and different treatment methods employed. The results of all analyses per quarter shall be arithmetically averaged and reported to the state within 30 days of the system's receipt of such results. Results shall also be reported to EPA until such monitoring requirements have been adopted by the state. All samples collected shall be used in the computation of the average unless the analytical results are invalidated for technical reasons. Sampling and analyses shall be conducted in accordance with the methods listed in subsection (e) of this section.

(2) Upon the written request of a community water system, the monitoring frequency required by paragraph (b)(1) of this section may be reduced by the state to a minimum of 1 sample analyzed for TTHMs per quarter taken at a point in the distribution system reflecting the maximum residence time of the water in the system, upon a written determination by the state that the data from at least 1 year of monitoring in accordance with paragraph (b)(1) of this section and local conditions demonstrate that total trihalomethane concentrations will be consistently below the maximum contaminant level.

(3) If at any time during which the reduced monitoring frequency prescribed under paragraph (b)(2) of this section applies, the results from any analysis exceed 0.10 milligrams per liter of total trihalomethane and such results are confirmed by at least 1 check sample taken promptly after such results are received, or if the system makes any significant change to its source of water or treatment program, the system shall immediately begin monitoring in accordance with the requirements of paragraph (b)(l) of this section, which monitoring shall continue for at least I year before the frequency may be reduced again. At the option of the state, a system's monitoring frequency may and should be increased above the minim um in those cases where it is necessary to detect variations of total trihalomethane levels within the distribution system.

(c)(1) Upon written request to the state, a community water system utilizing only ground-water sources may seek to have the monitoring frequency required by paragraph (b)(1) of this section reduced to a minimum of 1 sample for maximum total trihalomethane potential per year for each treatment plant used by the system taken at a point in the distribution system reflecting maximum residence time of the water in the system. The system shall submit to the state the results of at least 1 sample analyzed for maximum total trihalomethane potential for each treatment plant used by the system taken at a point in the distribution system reflecting the maximum residence time of the water in the system. The system's monitoring frequency may only be reduced upon a written determination by the state that, based upon the data submitted by the system, the system has a maximum total trihalomethane potential of less than 0.10 milligrams per liter and that, based upon an assessment of the local conditions of the system, the system is not likely to approach or exceed the maximum contaminant level for total trihalomethanes. The results of all analyses shall be reported to the state within 30 days of the system's receipt of such results. Results shall also be reported to EPA until such monitoring requirements have been adopted by the state. All samples collected shall be used for determining whether the system must comply with the monitoring requirements of subsection (b) of this section unless the analytical results are invalidated for technical reasons. Sampling and analyses shall be conducted in accordance with the methods listed in subsection (e) of this section.

(2) If at any time during which the reduced monitoring frequency prescribed under paragraph (c)(l) of this section applies, the results from any analysis taken by the system for maximum total trihalomethane potential are equal to or greater than 0.10 milligrams per liter and such results are confirmed by at least 1 check sample taken promptly after such results are received, the system shall immediately begin monitoring in accordance with the requirements of subsection (b) of this section, and such monitoring shall continue for at least 1 year before the frequency may be reduced again. In the event of any significant change to the system's raw water or treatment program, the system shall immediately analyze an additional sample for maximum total trihalomethane potential taken at a point in the distribution system reflecting maximum residence time of" the water in the system for the purpose of determining whether the system must comply with the monitoring requirements of subsection (b) of this section. At the option of the state, monitoring frequencies may and should be increased above the minimum in those cases where this is necessary to detect variation of total trihalomethane levels within the distribution system.

(d) Compliance with 25.0427(c) shall be determined based on a running annual average of quarterly samples collected by the system as prescribed in paragraphs (1) or (2) of subsection (b) of this section. If the average of samples covering any 12-month period exceeds the maximum contaminant level, the supplier of water shall report to the state pursuant to 25.0442 and notify the public pursuant to 25.0443. Monitoring after public notification shall be at a frequency designated by the state and shall continue until a monitoring schedule, as a condition to a variance, exemption, or enforcement action, becomes effective.

(e)(1) Sampling and analyses made pursuant to this section shall be conducted by one of the following EPA-approved methods:

(A) "The Analysis of Trihalomethanes in Finished Waters by the Purge and Trap Method", Method 501.1, Environmental Monitoring Support Laboratory, EPA, Cincinnati, Ohio 45268;

(B) "The Analysis of Trihalomethanes in Drinking Water by Liquid/Liquid Extraction", Method 501.2, Environmental Monitoring Support Laboratory, EPA, Cincinnati, Ohio 45268.

(2) Samples for total trihalomethane shall be dechlorinated upon collection to prevent further production of trihalomethanes, according to the procedures described in the 2 methods contemplated in paragraph (1) of this subsection. Samples, for maximum total trihalomethane potential, should not be dechlorinated, and should be held for 7 days at 25 degrees Celsius prior to analysis, according to the procedures described in the 2 methods contemplated in paragraph (1) of this subsection.

(f) Before a community water system makes any significant modifications to its existing treatment process for the purposes of achieving compliance with 25.0427(c), such system must submit and obtain state approval of a detailed plan setting forth its proposed modification and those safeguards that it will implement to ensure that the bacteriological quality of the drinking water served by such system will not be adversely affected by such modification. Each system shall comply with the provisions set forth in the state-approved plan. At a minimum, a state-approved plan shall require the system modifying its disinfection practice to:

(1) evaluate the water system for sanitary defects and evaluate the source water for biological quality;

(2) evaluate its existing treatment practices and consider improvements that will minimize disinfectant demand and optimize finished water quality throughout the distribution system;

(3) provide baseline water quality survey data of the distribution system. Such data should include the results from monitoring for coliform and fecal coliform bacteria, fecal streptococci, standard plate counts at 35 degrees Celsius and 20 degrees Celsius phosphate, ammonia nitrogen, and total organic carbon. Virus studies should be required where source waters are heavily contaminated with sewage effluent;

(4) conduct additional monitoring to assure continued maintenance of optimal biological quality in finished water, for example, when chloramines are introduced as disinfectants or when prechlorination is being discontinued. Additional monitoring should also be required by the state for chlorate, chlorite and chlorine dioxide when chlorine dioxide is used as a disinfectant. Standard plate count analyses should also be required by the state as appropriate before and after any modifications;

(5) Demonstrate an active disinfectant residual throughout the distribution system at all times during and after the modification.

(6) This subsection (f) shall become effective on 13 Ju181.

(g) All samples required by this section will be taken by state.

History: Rule 9-81, eff 13 Ju1 81, § 2(141.24A).

25.0437 Radioactivity-Analytical methods.

(a) The methods specified in "Interim Radio- chemical Methodology for Drinking Water", Environmental Monitoring and Support Laboratory, EPA-600/4-75-008, EPA, Cincinnati, Ohio 45268, or those listed below, are to be used to determine compliance with 25.0430 and 25.0431 (radioactivity) except in cases where alternative methods have been approved in accordance with 25.0439:

(1) Gross alpha and beta: Method 302, "Gross Alpha and Beta Radioactivity in Water", "Standard Methods for the Examination of Water and Wastewater", 13th Edition, American Public Health Association, New York, N.Y., 1971;

(2) Total radium: Method 304, "Radium in Water by Precipitation", ibid.;

(3) Radium-226: Method 305, "Radium-226 by Radon in Water", ibid.;

(4) Strontium-89, 90: Method 303, "Total Strontium and Strontium-90 in Water", ibid.;

(5) Tritium: Method 306, "Tritium in Water", ibid.;

(6) Cesium 134: ASTM D-2459, "Gamma Spectrometry in Water", "1975 Annual Book of ASTM Standards, Water and Atmospheric Analysis", Part 31, American Society for Testing and Materials, Philadelphia, Penn., 1975;

(7) Uranium: ASTM D-2907, "Micro Quantities of Uranium in Water by Fluorometry", ibid.

(b) When the identification and measurement of radionuclides other than those listed in subsection (a) of this section is required, the following references are to be used, except in cases where alternative methods have been approved in accordance with 25.0439:

(1) "Procedures for Radiochemical Analysis of Nuclear Reactor Aqueous Solutions", H.L. Krieger and S. Gold, EPA-R4-73-014, EPA, Cincinnati, Ohio 45268, May 73;

(2) "HASL Procedure Manual", edited by John H. Harley, HASL 300, ERDA Health and Safety Laboratory, New York, N.Y., 1973.

(c) For the purpose of monitoring radioactivity concentrations in drinking water, the required sensitivity of the radioactivity is defined in terms of a detection limit. The detection limit shall be that concentration which can be counted with a precision of plus or minus 100% at the 95% confidence level (1.96 σ where σ is the standard deviation of the net counting rate of the sample).

(1) To determine compliance with 25.0430(a) the detection limit shall not exceed 1 picocurie per liter. To determine compliance with 25.0430(b) the detection limit shall not exceed 3 picocuries per liter.

(2) To determine compliance with 25.0431 the detection limits shall not exceed the concentration listed in Table B.

TABLE B

DETECTION LIMITS FOR MANMADE BETA

PARTICLES AND PHOTON EMITTERS

Radionuclide	Detection Limit (picocuries per liter)
Tritium	1,000
Strontium-89	10
Strontium-90	2
Iodine-131	1
Cesium-134	10
Gross beta	4
Other radionuclides	1/l0 of the applicable limit.

(d) To judge compliance with the maximum levels listed in 25.0430 and 25.0431, averages of data shall be used and shall be rounded to the same number of significant figures as the maximum contaminant level for the substance in question.

History: Rule 9-81, eff 13 Ju181, § 2(141.25).

25.0438 Radioactivity-Monitoring.

(a) Monitoring requirements for gross alpha particle activity, radium-226 and radium-228 in community water systems:

(1) Initial sampling to determine compliance with 25.0430 shall begin immediately after 13 Jul 81 and the analysis shall be completed within 1 year of 13 Jul 81. Compliance shall be based on the analysis of an annual composite of 4 consecutive quarterly samples or the average of the analysis of 4 samples obtained at quarterly intervals.

(A) 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 picocuries per liter at a confidence level of 95% (1.65 σ where σ is the standard deviation of the net county rate of the sample). In localities where radium-228 may be present in drinking water, it is recommended that the state require radium-226 and/or radium- 228 analyses when the gross alpha-particle activity exceeds 2 picocuries per liter.

(B) When the gross alpha-particle activity exceeds 5 picocuries per liter, the same or an equivalent sample shall be analyzed for radium-226. If the concentration of radium-226

exceeds 3 picocuries per liter the same or an equivalent sample shall be analyzed for radium-228.

(2) For the initial analysis required by paragraph (a)(1) of this section, data required within 1 year prior to 13 Jul 81 may be substituted at the discretion of the state.

(3) The state shall monitor at least once every 4 years following the procedure required by paragraph (a)(1) of this section. At the discretion of the state, when an annual record taken in conformance with paragraph (a)(1) of this section has established that the average annual concentration is less than half the maximum contaminant levels established by 25.0430, analysis of a single sample may be substituted for the quarterly sampling procedure required by paragraph (a)(1).

(A) More frequent monitoring may be conducted by the state in the vicinity of mining or other operations which may contribute alpha- particle radioactivity to either surface or ground- water sources of drinking water.

(B) The state shall monitor in conformance with paragraph (a)(1) of this section within 1 year of the introduction of a new water source for a community water system. More frequent monitoring may be conducted by the state 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.

(C) For community water systems using 2 or more sources having different concentrations of radioactivity, the state shall monitor source water, in addition to water from a free-flowing tap, when it determines such monitoring to be necessary.

(D) Monitoring for compliance with 25.0430 after the initial period need not include radium-228 except when determined to be necessary by the state, 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) of this section.

(E) The state shall conduct annual monitoring of any community water system in which the radium-226 concentration exceeds 3 picocuries per liter, when it determines such monitoring to be necessary.

(4) If the average annual maximum contaminant level for gross alpha particle activity or total radium as set forth in 25.0430 is exceeded, the state shall notify the public as required by 25.0443. Monitoring at quarterly intervals shall be continued until the annual average concentration no longer exceeds the maximum contaminant level or until a monitoring schedule, as a condition to a variance, exemption, or enforcement action, becomes effective.

(b) Monitoring requirements for manmade radioactivity in community water systems:

(1) Immediately after 13 Jul 81, systems using surface water sources and serving more than 50,000 persons and such other community water systems as are designated by the state shall be monitored for compliance with 25.0431 by analysis of a composite of 4 consecutive samples or analysis of 4 quarterly samples. Compliance with 25.0431 may be assumed without further analysis if the average annual concentration of gross beta particle activity is less than 50 picocuries per liter 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 equivalents to bone marrow shall not exceed 4 millirems per year.

(A) If the gross beta-particle activity exceeds 50 picocuries per liter, 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 25.0431.

(B) The state shall conduct additional monitoring to determine the concentration of manmade radioactivity in principal watersheds designated by the state, when it determines such monitoring to be necessary.

(C) At its discretion, the state may monitor community water systems utilizing only ground-waters for manmade radioactivity.

(2) For the initial analysis required by paragraph (b)(1) of this section, data acquired within I year prior to 13 Jul 81 may be substituted at the discretion of the state.

(3) After the initial analyses required by paragraph (b)(1) of this section, the state shall monitor at least every 4 years, following the procedure given in paragraph (b)(1).

(4) Immediately after 13 Jul 81 the ASG shall initiate quarterly monitoring of community water systems designated by the ASG as utilizing water contaminated by effluents from nuclear facilities or nuclear fallout for gross beta particle and iodine-131 radioactivity and annual monitoring for strontium-90 and tritium.

(A) Quarterly monitoring of the representative systems for gross beta-particle activity shall be based on the analysis of monthly samples or the analysis of a composite of 3 monthly samples. The former is recommended. If the gross beta particle in a sample exceeds 15 picocuries per liter, the same or an equivalent sample shall be analyzed for strontium-89 and cesium-134. If the gross beta-particle activity exceeds 50 picocuries per liter, all of the PWS system shall be sampled and analyzed. The 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 25.0431.

(B) For iodine-131, a composite of 5 consecutive daily samples shall be analyzed once each quarter. More frequent monitoring shall be conducted when iodine-131 is identified in the finished water.

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

(D) The state may allow the substitution of environmental surveillance data taken in conjunction with a nuclear facility for direct monitoring of manmade radioactivity by the supplier of water where the state determines such data is applicable to a particular community water system.

(5) If the average annual maximum contaminant level for manmade radioactivity set forth in 25.0431 is exceeded, the state shall notify the public as required by 25.0443. 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 becomes effective.

History: Rule 9-81, eff 13 Ju181, § 2(141.26)

25.0439 Alternative analytical techniques.

With the written permission of the state, concurred in by the Administrator of the U.S. Environmental Protection Agency, an alternative analytical technique 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 article.

History: Rule 9-81, eff 13 Ju181, § 2(141.27).

25.0440 Approved laboratories.

For the purposes of determining compliance with 25.0432 through 25.0439, samples may be considered only if they have been analyzed by a laboratory approved by the state except that measurements for turbidity and free chlorine residual may be performed by any person acceptable to the state.

History: Rule 9-81, eff 13 Ju181, § 2(141.28).

25.0441 Interconnecting water systems.

When a public water supplies water to 1 or more other public water systems, the state may modify the monitoring requirements imposed by this article to the extent that the inter-connection of the systems justifies treating them as a single system for monitoring purposes. Any modified monitoring shall be conducted pursuant to a schedule specified by the state and concurred in by the Administrator of the U.S. Environmental Protection Agency.

History: Rule 9-81, eff 13 Ju181, § 2(141.29).

25.0442 Reporting test results and violations.

(a) Except where a shorter reporting period is specified in this article, the supplier of water shall report to the environmental quality commission secretary within 40 days following a

test, measurement, or analysis required to be made by this article the results of that test, measurement, or analysis.

(b) The supplier of the water shall report to the environmental quality commission secretary within 48 hours the failure to comply with any primary drinking water rule (including failure to comply with the monitoring requirements) set forth in this article.

(c) The supplier of water is not required to report analytical results to the environmental quality commission secretary where the ASG laboratory performs the analysis and reports the results to the environmental quality commission secretary who would normally receive such notification from the supplier.

(d) When the ASG's environmental quality laboratory performs the monitoring required by the act, the suppliers of water will not be responsible for monitoring requirements.

(e) The results of any test or analysis, required to satisfy any requirement of this part, performed by a certified lab, shall be reported to the state by the certified lab within 40 days following a test.

History: Rule 9-81, eff 13 Jul 81, § 2(141.30).

25.0443 Failure to comply, exception, variance notice.

(a) If a community water system fails to comply with an applicable maximum contaminant level established in 25.0426 through 25.0431, fails to comply with an applicable testing procedure established in 25.0432 through 25.0441, is granted a variance or an exemption from an applicable maximum contaminant level, or 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 § 1445(a) of the act, the state shall notify persons served by the system of the failure or grant by inclusion of a notice in the first set of water bills of the system issued after the failure or grant and in any event by written notice within 3 months. Such notice shall be repeated at least once every 3 months as long as the system's failure continues or the variance or exemption remains in effect. If the state issues water bills less frequently than quarterly or does not issue water bills and 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 state shall notify the public of such failure, in addition to the notification required by subsection (a) of this section, as follows:

(1) By publication on not less than three consecutive days in a state Daily News Bulletin or newspaper of general circulation such as the Samoa News. Such notice shall be completed within 14 days after the state learns of the failure;

(2) By furnishing a copy of the notice to the radio and television station. Such notice shall be furnished within 7 days after the state learns of the failure;

(3) For village systems, the village mayor shall be notified.

(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 subsection (b) of this section shall be given by publication on 3 consecutive weeks in a weekly newspaper of general circulation serving the area. If no weekly newspaper of general circulation serves the area, notice shall be given by posting the notice in post offices within the area served by the system.

(d) If a noncommunity water system fails to comply with an applicable maximum contaminant level established in 25.0426 through 25.0431, fails to comply with an applicable testing procedure established in 25.0432 through 25.0441, 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 § 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 prescribed by the state, and shall ensure that the public using the system is adequately informed of the failure or grant after the supplier of water learns of the failure.

(e) Notices given pursuant to this section shall be written in a manner reasonably designed to inform fully the users of the system. This notice shall be conspicuous and shall not use unduly technical language, unduly small print, or other methods which 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 preventative t:neasures that should be taken by the public. Where appropriate, or where designated by the state, bilingual notice shall be given. Notices 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 state on behalf of the supplier of water.

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

(h) Public notices will be bilingual.

History: Rule 9-81, eff 13 Ju181, § 2(141.31).

25.0444 Records kept by public works department.

The public works department of the state 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 article shall be kept for not less than 5 years. Records of chemical analyses made pursuant to this article shall be kept for not

less than 10 years. Actual laboratory reports may be kept, or data may be transferred to tabular summaries, provided 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.

(b) Records of action taken by the system to correct violations of primary drinking water regulations shall be kept for a period not less than 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 local, state, or federal agency, shall be kept for a period not less than 10 years after completion of the sanitary survey involved. Records concerning a variance or exemption granted to the system shall be kept for a period ending not less than 5 years following the expiration of such variance or exemption.

History: Rule 9-81, eff 13 Jul 81, § 2(141.32).

25.0445 Records kept by ASG.

(a) The ASG shall maintain records of tests, measurements, and analyses performed on each public water system to determine compliance with applicable provisions of the state primary drinking water rules.

(1) Records of microbiological analyses shall be retained for not less than 1 year. Actual laboratory reports may be kept or data may be transferred to tabular summaries, provided that the information retained includes:

(A) the analytical method used;

(B) the number of samples analyzed each month;

(C) the analytical results, set forth in a form which makes possible comparison with the limits specified in 25.0429.

(2) Records of microbiological analyses of check or special samples shall be retained for not less than 1 year in the form of actual laboratory reports or in appropriate summary form.

(3) Records of turbidity measurements shall be retained for not less than 1 year and shall include at least the following information:

(A) Date and place of sampling;

(B) Date and results of analyses.

(4) Records of analyses for other than micro- biological contaminants or turbidity shall be retained for not less than 40 years and shall include at least the following information:

(A) Date and place of sampling;

(B) Date and results of analyses.

(b) Records required to be kept pursuant to subsection (a) of this section must be in a form admissible as evidence in state enforcement proceedings.

(c) The ASG shall maintain current inventory information for each public water system in the state and shall retain inventory records of public water systems for not less than 40 years.

(d) The ASG shall retain, for not less than 10 years, files which shall include, for each such public water system in the state;

(1) Reports of sanitary surveys;

(2) Records of any state approvals;

(3) Records of any enforcement actions.

(e) The ASG shall retain records pertaining to each variance and exemption granted by it for a period of not less than 5 years following the expiration of such variance or exemption.

(f) The records required to be kept by this section shall be maintained and made available for public inspection by the state.

History: Rule 9-81, eff. 13 Ju181, § 2(141.33).

25.0446 Inventory of water systems.

The safe drinking water enforcement officer will maintain a current inventory of all public water systems operating in American Samoa.

History: Rule 9-81, eff. 13 Ju181, § 2(141.34).

25.0447 Sanitary surveys.

Sanitary surveys will be performed in each public water system annually.

History: Rule 9-81, eff. 13 Ju1 81, § 2(141.35).

25.0448 Construction or modification- Review of plans.

Plans for new construction of or modifications to a public water system will be reviewed by the personnel of the environmental quality commission of the ASG for their capability to comply with the safe drinking water rules.

History: Rule 9-81, eff. 13 Ju181, § 2(141.36).

25.0449 Variance-Requirements.

(a) The state may grant l or more variances to any public water system from any requirement respecting a maximum contaminant level of an applicable national primary drinking water regulation 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 maximum contaminant levels of such drinking water regulations despite application of the best technology, treatment techniques, or other means, which the United States Environmental Protection Agency 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 the system.

(b) The state may grant l or more variances to any public water system from any requirement of a specified treatment technique of an applicable national primary drinking water regulation 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 water source of such a system.

History: Rule 9-81, eff. 13 Ju181, § 2(142.40).

25.0450 Variance-Records.

The state shall maintain a record for each pro'posed variance which 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 the national primary drinking water rules.

(c) For any request made under 25.0449(a):

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

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

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

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

(i) Date by which arrangement 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 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 25.0449(b), a statement that the state will perform monitoring and other reasonable requirements prescribed by the EP A Administrator as a condition to the variance;

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

History: Rule 9-81, eff 13 Jul 81, § 2(142.41).

25.0451 Variance-Consideration of request.

(a) The state shall act on any variance within 90 days of its receipt.

(b) If the consideration of whether the public water system is unable to comply with a contaminant level required by the national primary drinking water regulations because of the nature of the raw water source, the state 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 alternate 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's health, the state 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.

History: Rule 9-81, eff 13 Ju1 81, § 2(142.42).

25.0452 Variance-Proposed granting-Compliance schedule.

(a) If the state proposes to grant a variance, it shall notify the public of its decision in writing pursuant to 25.0443. Such notice shall identify the variance, the facility covered, and shall specify the period of time for which the variance will be effective.

(1) F or the type of variance specified in 25.0449(a) such notice shall provide that the variance will be terminated when the system comes into compliance with the applicable rule, and may be terminated upon a finding by the state that the system has failed to comply with any requirements of a final schedule issued pursuant to 25.0453.

(2) For the type of variance specified in 25.0449(b) such notice shall provide that the variance may be terminated at any time upon a finding that the nature of the raw water source 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 state as a condition to the granting of the variance.

(b) For a variance specified in 25.0449(a)(1) the state 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 state may require for each contaminant covered by the variance.

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

(1) Date by which arrangement for alternative raw water source or improvement of existing 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;

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

(d) 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 state.

(e) 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 toward meeting the interim control measures are to be met.

(f) The schedule shall be prescribed by the state within 1 year after the granting of the variance, subsequent to provision of opportunity for hearing pursuant to 25.0453.

History: Rule 9-81, eff 13 Jul 81, § 2(142.43).

25.0453 Variance-Public hearings-Compliance schedule.

(a) Before a variance or a schedule proposed by the state pursuant to 25.0452, may take effect, the state shall provide notice and opportunity for public hearing on the variance or schedule. A notice given pursuant to the preceding sentence may cover the granting of more than 1 variance and a hearing held pursuant to such notice shall include each of the variances covered by the notice.

(b) Public notice of an opportunity for a hearing on a variance or schedule shall be circulated in a manner designed to inform interested and potentially interested persons of proposed variance or schedule, and shall include at least the following:

(1) Posting of a notice in the principal post office of each municipality or area served by the public water system, and publishing of a notice in a newspaper or newspapers of general circulation in the area served by the public water system;

(2) Mailing of a notice to other appropriate local agencies at the discretion of the state; and

(3) Such notice shall include a summary of the proposed variance or schedule and shall inform interested persons that they may request a public hearing on the proposed variance or schedule.

(c) Requests for hearing may be submitted by any interested person other than a federal agency. Frivolous or insubstantial requests for hearing may be denied by the state. Requests must be submitted to the state within 30 days after issuance of the public notices provided for in subsection (b) of this section. Such 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 each 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.

(d) The state shall give notice in the manner set forth in subsection (b) of this section of any hearing to be held pursuant to a request submitted by an interested person or on its own motion. Notice of the hearing shall also be sent to the persons requesting the hearing, if any. Notice of the hearing shall include a statement of the purpose of the hearing, 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. Notice of hearing shall be given not less than 15 days prior to the time scheduled for the hearing.

(e) A hearing convened pursuant to subsection (d) of this section shall be conducted before a hearing officer to be designated by the state. The hearing shall be conducted by the hearing officer in an informal, orderly, and expeditious manner. The hearing officer shall have authority to call witnesses, receive oral and written testimony, and take such other action as may be necessary to assure the fair and efficient conduct of the hearing. Following the conclusion of the hearing, the hearing officer shall forward the record of the hearing to the state.

(f) The variance or schedule shall become effective 30 days after notice of opportunity for hearing is given pursuant to subsection (b) if no timely request for hearing is submitted.

History: Rule 9-81, eff 13 Ju181, § 2(142.44).

25.0454 Variance-Action after hearing-Schedule action.

Within 30 days after the termination of the public hearing held pursuant to 25.0453, the state, taking into consideration information obtained during such a hearing and other relevant information, shall confirm, revise, or rescind the proposed variance or schedule.

History: Rule 9-81, eff 13 Jul 81, § 2(142.45).

25.0455 Variance-Alternative treatment techniques.

The state may grant a variance from any treatment technique requirement of a national primary drinking water regulation 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 section shall be conditioned on the use of the alternative treatment technique which is the basis of the variance.

History: Rule 9-81, eff 13 Jul 81, § 2(142.46).

25.0456 Exemption-Requirements.

The state may exempt any public water system from any requirement respecting a maximum contaminant level or any treatment technique requirement, or from both, of an applicable national primary drinking water regulation upon finding that:

(1) 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;

(2) the public water system was in operation on the effective date of EPA "National Interim Primary Drinking Water Regulation" (24 Jun 77); and

(3) the granting of the exemption will not result in an unreasonable risk to health. No exemption will grant for failure to meet bacteriological standards.

History: Rule 9-81, eff 13 Jul 81, § 2(142.50).

25.0457 Exemption-Record.

The state shall maintain a record for each proposed exemption which shall include the following information:

(1) The nature and duration of exemption requested;

(2) Relevant analytical results of water quality sampling of the system, including results of relevant tests conducted pursuant to the requirements of the national primary drinking water regulations;

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

(4) Other information, if any, believed to be pertinent to the application;

(5) A proposed compliance schedule, including the date when each step toward compliance will be achieved; and

(6) Such other information as the state may require.

History: Rule 9-81, eff 13 Jul 81, § 2(142.51).

25.0458 Exemption-Consideration.

(a) The state shall act on any exemption within 90 days.

(b) In its consideration of whether the public water system is unable to comply due to compelling factors, the state 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;

(3) Economic feasibility of compliance.

History: Rule 9-81, eff 13 Ju181, § 2(142.52).

25.0459 Exemption-Public notice- Schedule for compliance.

(a) If the state grants an exemption request submitted pursuant to 25.0457, it shall notify the public of its decision in writing, pursuant to 25.0443. 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 a finding by the state that the system has failed to comply with any requirements of a final schedule issued pursuant to 25.0461.

(b) The state shall propose a schedule for:

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

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

(c) The schedule shall be prescribed by the state within 1 year after the granting to the exemption, subsequent to provisions of opportunity for hearing pursuant to 25.0460.

History: Rule 9-81, eff 13 Jul 81, § 2(142.53).

25.0460 Exemption-Public hearings on schedules.

(a) Before a schedule proposed by the state pursuant to 25.0459 may take effect, the state 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 1 such schedule and a hearing held pursuant to such notice shall include each of the schedules covered by the notice.

(b) Public notice of an opportunity for hearing on an exemption schedule shall be circulated in a manner designed to inform interested and potentially interested persons of the proposed schedule, and shall include at least the following:

(1) Posting of a notice in the principal post office of each municipality or area served by the public water system, and publishing of a notice in newspaper or newspapers of general circulation in the area served by the public water system;

(2) Mailing of a notice to other appropriate state or local agencies at the discretion of the state;

(3) Such notices shall include a summary of the proposed schedule and shall inform interested persons that they may request a public hearing on the proposed schedule.

(c) Requests for hearing may be submitted by any interested person other than a federal agency. Frivolous or insubstantial requests for hearing may be denied by the state. Requests must be submitted to the state within 30 days after issuance of the public notices provided for in subsection (b) of this section. Such 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.

(d) The state shall give notice in the manner set forth in subsection (b) of this section of any hearing to be held pursuant to a request submitted by an interested person or on his own 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 of the hearing, 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. Notice of the hearing shall be given not less than 15 days prior to the time scheduled for the hearing.

(e)(1) A hearing convened pursuant to subsection (d) of this section shall be conducted before a hearing officer to be designated by the state. The hearing shall be conducted by the hearing officer in an informal, orderly, and expeditious manner.

(2) The hearing officer shall have authority to call witnesses, receive oral and written testimony, and take such action as may be necessary to assure the fair and efficient conduct of the hearing.

(3) Following the conclusion of the hearing, the hearing officer shall forward the record of the hearing to the state.

History: Rule 9-81, eff. 13 Ju181, § 2(142.54).

25.0461 Exemption-Final schedule.

(a) Within 30 days after the termination of the public hearing pursuant to 25.0460, the state shall, taking 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 23.0458.

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

(1) interim national primary drinking water regulations pursuant to this article, by no later than 1 Jan 84; and

(2) Revised national primary drinking water regulations pursuant to this article, by no later than 7 years after the effective date of such regulations.

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

(1) interim national primary drinking water regulations pursuant to this article, by no later than 1 Jan 86; and

(2) revised national primary drinking water regulations pursuant to this article, by no later than 9 years after the effective date of such regulations.

History: Rule 9-81, eff. 13 Ju1 81, § 2(142.55).

III. Emergency Plan

25.0465 Purpose-Administration.

(a) The purpose of the plan codified in this article is to assure the safety and welfare of the people of American Samoa in case of a failure of the potable water supply system. This plan provides for an organized response to any water supply emergency.

(b) Failure of the public water supply systems could result from toxic compounds in the water, natural disasters; e.g. landslides, hurricanes, or drought, or failure of the electric power supply. The water supply on the island is vulnerable to shortages of fuel oil which is required for power generation. Any long-term failure of any of the island's water systems will be viewed as a potential emergency situation.

(c) The Governor of American Samoa will declare that an emergency exists and will administer the emergency plan through the existing office of the government ecologist.

History: Rule 9-81, eff.13 Jul 81, § 3(1).

25.0466 Inventory-Resources.

An inventory of all water systems in American Samoa is being made and will be kept current by the safe drinking water enforcement officer. Equipment available on the island to assist during an emergency is being surveyed. A questionnaire inquiring about available equipment was sent to all pertinent government agencies, private industry, and construction companies. Information resulting from this survey will be compiled and updated by the safe drinking water enforcement officer.

History: Rule 9-81, eff 13 Ju1 81, § 3(2).

25.0467 Communication media.

Telephone, radio, and television are available to notify the public of an emergency situation. Most of the government vehicles are equipped with transceiver radios. Recently satellite communication has permitted American Samoa immediate access to points around the world.

History: Rule 9-81, eff. 13 Jul 81, § 3(3).

25.0468 Shelters.

The safe drinking water officer will arrange with the department of education for use of village school buildings and high schools and the community college in case of an emergency. The Rainmaker Hotel could be made available as a shelter and provisions are being made to make available other public restaurants and clubs. These buildings have sewage disposal facilities that could tolerate heavy use for several days.

History: Rule 9-81, eff. 13 Jul 81, § 3(4).

25.0469 Power generators.

Emergency generators are available in the wastewater collection system. The ASG must acquire generators to activate the Tafuna wells in case of prolonged power failure.

History: Rule 9-81, eff. 13 Ju181, § 3(5).

25.0470 ASG notice and response procedure.

The following organizations will be notified and will respond accordingly:

(Governor of American Samoa declares emergency.)

(1) Ecologist coordinates emergency plan;

(2) Sanitary drinking water officer notifies all agencies on equipment inventory of what assistance is needed, also locates available water supplies;

(3) Public works department takes lead in replacing dan1aged water systems and supplying electric power to area with greatest need;

(4) Department of health inspects and acts to correct health-threatening situations;

(5) Department of public safety evacuates people to safety shelters, prohibits entrance to designated area of emergency;

(6) Office of Samoan Information disseminates information from government ecologist to public;

(7) Office of education makes buildings and staff available for public shelter;

(8) United States Environmental Protection Agency.

History: Rule 9-81, eff 13 Jul 81, § 3(6).

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