

STATE OF HAWAII
ANNUAL PUBLIC WATER SYSTEM
COMPLIANCE REPORT
CALENDAR YEAR 2014

July 1, 2015

Prepared by:

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I. The National Drinking Water Program

Overview. The EPA established the Public Water System Supervision (PWSS) Program under the authority of the 1974 Safe Drinking Water Act (SDWA). Under the SDWA and the 1986 and 1996 Amendments, EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs) and Maximum Residual Disinfectant Levels (MRDLs). For some contaminants, EPA establishes treatment techniques in lieu of an MCL to control unacceptable levels in water. The Agency also regulates how often public water systems (PWSs) monitor their water for contaminants and report the monitoring results to the states or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting (M/R) requirements. In addition, EPA requires PWSs to monitor for unregulated contaminants to provide data for future regulatory development. Finally, EPA requires PWSs to notify their consumers when they have violated these regulations. The 1996 Amendments to the SDWA require consumer notification to include a clear and understandable explanation of the nature of the violation, its potential adverse health effects, steps that the PWS is undertaking to correct the violation and the possibility of alternative water supplies during the violation.

The SDWA applies to the 50 states, the District of Columbia, Indian Lands, Puerto Rico, the Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

The SDWA allows states and territories to seek EPA approval to administer their own PWSS Programs. The authority to run a PWSS Program is called primary enforcement authority or primacy. For a state to receive primacy, EPA must determine that the state meets certain requirements laid out in the SDWA and the regulations, including the adoption of drinking water regulations that are at least as stringent as the Federal regulations and a demonstration that they can enforce the program requirements. EPA can also set other requirements for states to meet in order to qualify and maintain primacy. Once a state receives primacy, it has the responsibility to administer all applicable terms of the National Primary Drinking Water Regulations with EPA oversight. In addition, EPA can provide federal funding to states that have been given primacy.

The 1986 SDWA Amendments gave Indian Tribes the right to apply for and receive primacy. EPA currently administers PWSS Programs on all Indian lands except the Navajo Nation, which was granted primacy in late 2000.

Under the authority given to it by Congress through the Safe Drinking Water Act and its amendments, EPA promulgates National Primary Drinking Water Regulations (NPDWR) to assure the safety of drinking water at the national level. The NPDWR is made up of a series of individual regulations which address specific concerns in drinking water. As new concerns are developed, new regulations can be added to the NPDWR. Most new regulations address specific contaminants or drinking water issues and contain its own set of monitoring and reporting requirements, MCLs and treatment techniques. Other regulations set forth requirements for informing the public about drinking water quality. States must adopt each new rule along with a set of primacy requirements in order to attain primary enforcement authority for that rule. EPA is also required to reassess its existing MCLs periodically as well as continually assess new contaminants for regulation.

The table below lists the rules which EPA currently enforces and their promulgation and effective dates:

RULE	PROMULGATION DATE	EFFECTIVE DATE
Total Coliform Rule	6/29/1989	12/31/1990
Surface Water Treatment Rule	6/29/1989	12/31/1990
Phase I Volatile Organic Chemical Rule	7/8/1987	1/9/1989
Lead and Copper Rule	6/7/1991	12/7/1992
Phase II Synthetic Organic/Inorganic Chemical Rule	1/30/1991	1/1/1993
Phase V Synthetic Organic/Inorganic Chemical Rule	7/17/1992	1/1/1993
Consumer Confidence Reports Rule	8/19/1998	10/19/1999
Unregulated Contaminant Monitoring Rule	9/17/1999	1/1/2001
Interim Enhanced Surface Water Treatment Rule	12/16/1998	1/1/2002
Lead and Copper Rule Minor Revisions	9/20/1999	4/11/2000
Long Term 1 Enhanced Surface Water Treatment Rule	1/14/2002	2/13/2002
Stage 1 Disinfectant/Disinfection By-Products Rule	1/16/1998	2/16/1999
Public Notification Rule	5/4/2000	6/5/2000
Revised Radionuclides Rule	12/7/2000	12/8/2003
Arsenic and Clarifications to Compliance and New Source Monitoring Rule	1/22/2001	1/23/2006
Filter Backwash Rule	6/8/2001	6/8/2004
Long Term 2 Enhanced Surface Water Treatment Rule	1/5/2006	3/6/2006
Stage 2 Disinfectant/Disinfection By-Products Rule	1/5/2006	3/6/2006
Groundwater Rule	10/11/2006	12/1/2009
Revised Total Coliform Rule ¹	2/13/2013	4/1/2016

Note: ¹ The RTCR becomes effective 4/1/2016. Until then PWSs will remain subject to the Total Coliform Rule.

In addition, EPA is revising the Lead and Copper Rule, is re-evaluating its current standards (MCLs) and is studying new contaminant candidates for potential regulation.

Definitions

For the purpose of better understanding this report, the following terms are defined:

Annual State PWS Report. Each quarter, primacy states submit data to the Safe Drinking Water Information System (SDWIS/FED), an automated database maintained by EPA.

The data submitted include, but are not limited to, PWS inventory information, the incidence of Maximum Contaminant Level, Maximum Residual Disinfectant Level, monitoring, and treatment technique violations; and information on enforcement activity related to these violations. Section 1414(c)(3) of the Safe Drinking Water Act requires states to provide EPA with an annual report of violations of the primary drinking water standards. This report provides the numbers of violations in each of five categories: MCLs, treatment techniques, variances and exemptions, significant monitoring violations, and significant consumer notification violations and will be made part of the national compliance report.

Public Water System. A Public Water System (PWS) is defined as a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. There are three types of PWSs. PWSs can be community (such as towns), non-transient non-community (such as schools or factories), or transient non-community systems (such as rest stops or parks). For this report when the acronym “PWS” is used, it means systems of all types unless specified in greater detail.

Maximum Contaminant Level. Under the Safe Drinking Water Act (SDWA), the EPA sets national limits for specific contaminants in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs).

Maximum Residual Disinfectant Level. The EPA sets national limits on residual disinfectant levels in drinking water to reduce the risk of exposure to disinfectant byproducts formed, when public water systems add chemical disinfectant for either primary or residual treatment. These limits are known as Maximum Residual Disinfectant Levels (MRDLs).

Treatment Techniques. For some regulations, the EPA establishes treatment techniques (TTs) in lieu of an MCL to control unacceptable levels of certain contaminants. For example, treatment techniques have been established for viruses, some bacteria, and turbidity.

Monitoring. A PWS is required to monitor and verify that the levels of contaminants present in the water do not exceed the MCL. If a PWS fails to have its water tested as required or fails to report test results correctly to the primacy agent, a monitoring violation occurs.

Significant Monitoring Violations. For this report, significant monitoring violations are generally defined as any Significant monitoring violation that occurred during the calendar year of the report. A Significant monitoring violation, with rare exceptions, occurs when no samples were taken or no results were reported during a compliance period.

Consumer Notification. Every Community Water System is required to deliver to its customers a brief annual water quality report. This report is to include some educational material, and will provide information on the source water, the levels of any detected contaminants, and compliance with drinking water regulations.

Significant Consumer Notification Violations. For this report, a significant public notification violation occurred if a community water system completely failed to provide its customers the required annual water quality report.

Variances and Exemptions. A primacy state can grant a PWS a variance from a primary drinking water regulation if the characteristics of the raw water sources reasonably available to the PWS do not allow the system to meet the MCL. To obtain a variance, the system must

agree to install the best available technology, treatment techniques, or other means of limiting drinking water contamination that the Administrator finds are available (taking costs into account), and the state must find that the variance will not result in an unreasonable risk to public health. The variance shall be reviewed not less than every five years to determine if the system remains eligible for the variance.

A primacy state can grant an exemption temporarily relieving a PWS of its obligation to comply with an MCL, treatment technique, or both if the system's noncompliance results from compelling factors (which may include economic factors) and the system was in operation on the effective date of the MCL or treatment technique requirement. The state will require the PWS to comply with the MCL or treatment technique as expeditiously as practicable, but not later than three years after the otherwise applicable compliance date.

II. HAWAII 2014 DRINKING WATER COMPLIANCE

Hawaii's annual compliance report is based on state records. 132 public water systems were regulated in Hawaii as of December 31, 2014.

Violations. A summary of the Calendar Year 2014 drinking water MCL, treatment technique, and significant monitoring/reporting violations is shown in Appendix A which is organized by contaminant type: organic and inorganic contaminants, radionuclides, total coliform rule, surface water treatment rule, disinfectant/disinfection by-products rule and lead and copper rule. A summary of the violations, listed by water system, is provided in Appendix B.

The state issued violation letters to all systems which incurred violations in 2014. The purveyors subsequently issued public notices to inform the public of the violations.

There were no MCL, treatment technique or major monitoring violations for any of the 69 water systems regulated under the **Phase I Volatile Organic Chemical, or Phases II and V Synthetic Organic/Inorganic Chemical Rules**.

There were no MCL violations of the new **Disinfectant/Disinfection By-Products Rule** (DBPR), but there were two significant monitoring violations by the Lower Kula (service population 3,192) for missing sampling in the second quarter of 2014 and by the Dillingham Airfield water system (service population 1,800) for failing to take an annual DBP sample in 2014.

There were no MCL violations for **Radiological** contaminants in 2014 and no significant monitoring or reporting violations since the monitoring period for a majority of community water systems for Radionuclides ends December 31, 2016.

There were no acute and three non-acute violations of the **Total Coliform Rule** in calendar year 2014. The three non-acute violations occurred in two community and one non-transient non-community system which included the Marine Corps Base Kaneohe (December 2014), Poamoho Estates (May 2014) and Kahili Mountain Park (March 2014) systems which serve: 15,900; 25; and 150 persons respectively. Each violation was for having two total coliform positive samples in the month. The Kahili Mountain Park system terminated water service in November 2014 and is no longer regulated by the Department of Health.

In 2014, there were no treatment technique violations of the **Surface Water Treatment Rule** incurred during calendar year.

There were no violations in 2014 of the **Lead and Copper Rule**.

In 2014, all community water systems complied with the **Consumer Confidence Rule (CCR)** to deliver an annual water quality or consumer confidence report.

In 2014, no new **variances or exemptions** were granted by the State of Hawaii, and no variances and exemptions were already in existence. Therefore, there were no violations of variances or exemptions.

In 2014, there were no violations of the Groundwater Rule triggered source water monitoring or treatment technique requirements.

Summary For 2014, the Hawaii Safe Drinking Water Branch identified three non-acute MCL violations of the TCR and a total of two significant monitoring or reporting violations for disinfection-by-products.

Obtaining a Copy of the 2014 Annual Public Water System Compliance Report

As required by the Safe Drinking Water Act, Hawaii has made the 2014 Annual Public Water System Compliance Report available to the public. Interested individuals can obtain a copy:

DOH/SDWB Website: <http://health.hawaii.gov/sdwb/> (Select Reports and Newsletters page, then link to "2014 Annual Public Water System Compliance Report")

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Table A: Hawaii Annual PWSSP Compliance Report for Calendar Year 2014

Synthetic Organic Contaminant	MCL (mg/l) unless specified	MCLs		Treatment Technique		Significant Mon/Rep	
		No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations
1,2-Dibromo-3-chloropropane	0.00004*	0	0			0	0
1,2-Dichloroethane	0.005	0	0			0	0
1,1-Dichloroethylene	0.007	0	0			0	0
1,2-Dichloropropane	0.005	0	0			0	0
1,1,1-Trichloroethane	0.2	0	0			0	0
1,2,3-Trichloropropane	0.0006*	0	0			0	0
1,2,4-Trichlorobenzene	0.07	0	0			0	0
1,1,2-Trichloroethane	0.005	0	0			0	0
2,4-D	0.07	0	0			0	0
2,4,5-TP (Silvex)	0.05	0	0			0	0
Acrylamide				0	0		
Alachlor	0.002	0	0			0	0
Atrazine	0.003	0	0			0	0
Benzene	0.005	0	0			0	0
Benzo(a)pyrene	0.0002	0	0			0	0
Carbofuran	0.04	0	0			0	0
Carbon Tetrachloride	0.005	0	0			0	0
Chlordane	0.002	0	0			0	0
Cis-1,2-Dichloroethylene	0.07	0	0			0	0
Dalapon	0.2	0	0			0	0
Di(2-ethylhexyl)adipate	0.4	0	0			0	0
Di(2-ethylhexyl)phthalate	0.006	0	0			0	0
Dichloromethane	0.005	0	0			0	0
Dinoseb	0.007	0	0			0	0
2,3,7,8-TCDD (Dioxin)	0.00000003	0	0			0	0
Diquat	0.02	0	0			0	0
Endothall	0.1	0	0			0	0
Endrin	0.002	0	0			0	0
Epichlorohydrin				0	0		
Ethylbenzene	0.7	0	0			0	0
Ethylene dibromide	0.00004*	0	0			0	0
Glyphosate	0.7	0	0			0	0
Heptachlor	0.0004	0	0			0	0
Heptachlor epoxide	0.0002	0	0			0	0
:Hexachlorobenzene	0.001	0	0			0	0
Hexachlorocyclopentadiene	0.05	0	0			0	0
Lindane	0.0002	0	0			0	0
Methoxychlor	0.04	0	0			0	0
Monochlorobenzene	0.1	0	0			0	0
o-Dichlorobenzene	0.6	0	0			0	0
Oxamyl (Vydate)	0.2	0	0			0	0

Table A: Hawaii Annual PWSSP Compliance Report for Calendar Year 2014

Synthetic Organic Contaminant	MCL (mg/l) unless specified	MCLs		Treatment Technique		Significant Mon/Rep	
		No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations
Para-Dichlorobenzene	0.075	0	0			0	0
Pentachlorophenol	0.001	0	0			0	0
Picloram	0.5	0	0			0	0
Simazine	0.004	0	0			0	0
Styrene	0.1	0	0			0	0
Tetrachloroethylene	0.005	0	0			0	0
Toluene	1	0	0			0	0
Total PCBs	0.0005	0	0			0	0
Toxaphene	0.002	0	0			0	0
Trans-1,2-Dichloroethylene	0.1	0	0			0	0
Trichloroethylene	0.005	0	0			0	0
Vinyl chloride	0.002	0	0			0	0
Xylenes (total)	10	0	0			0	0

* State MCL

Disinfection By-Products	MCL (mg/l) unless specified	MCLs		Treatment Technique		Significant Mon/Rep	
		No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations
Haloacetic Acids (HAA5)	0.060	0	0			2	2
Total Trihalomethanes	0.080	0	0			2	2

Radionuclides	MCL (mg/l) unless specified	MCLs		Treatment Technique		Significant Mon/Rep	
		No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations
Gross Alpha	15 pCi/L	0	0			0	0
Radium 226 and Radium 228	5 pCi/L	0	0			0	0
Gross Beta	4 mrem/yr	0	0			0	0
Uranium	30 µg/L	0	0			0	0

pCi/L means pico-Curies per liter, mrem/yr means millirems per year, µg/L means micrograms per liter or parts per billion

Table A: Hawaii Annual PWSSP Compliance Report for Calendar Year 2014

Total Coliform Rule	MCL (mg/l) unless specified	MCLs		Treatment Technique		Significant Mon/Rep	
		No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations
Acute MCL Violation	Presence	0	0				
Non-Acute MCL Violation	Presence	3	3				
Major routine and follow-up monitoring						0	0
Sanitary survey Violation A failure to meet any state or federal drinking water regulation						0	0

Surface Water Treatment Rule	MCL (mg/l) unless specified	MCLs		Treatment Technique		Significant Mon/Rep	
		No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations
Filtered Systems							
Monitoring routine/repeat						0	0
Treatment techniques				0	0		
Unfiltered systems							
Monitoring routine/repeat						0	0
Failure to filter				0	0		

Inorganic Chemicals	MCL (mg/l) unless specified	MCLs		Treatment Technique		Significant Mon/Rep	
		No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations
Antimony	0.005	0	0			0	0
Arsenic	0.01	0	0			0	0
Asbestos	7 MFL*	0	0			0	0
Barium	2	0	0			0	0
Beryllium	0.004	0	0			0	0
Cadmium	0.005	0	0			0	0
Chromium	0.1	0	0			0	0
Cyanide (as free cyanide)	0.2	0	0			0	0
Fluoride	4.0	0	0			0	0
Mercury	0.002	0	0			0	0
Nitrate (as Nitrogen)	10	0	0			0	0
Nitrite (as Nitrogen)	1	0	0			0	0
Selenium	0.05	0	0			0	0
Thallium	0.002	0	0			0	0
Total nitrate and nitrite (as Nitrogen)	10	0	0			0	0

* MFL stands for million fibers per liter.

Table A: Hawaii Annual PWSSP Compliance Report for Calendar Year 2014

Lead and Copper Rule	MCL (mg/l) unless specified	MCLs		Treatment Technique		Significant Mon/Rep	
		No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations
Initial lead and Copper tap M/R						0	0
Follow-up or routine lead and copper tap M/R						0	0
Treatment Installation				0	0		
Public Education				0	0		

Groundwater Rule	MCL (mg/l) unless specified	MCLs		Treatment Technique		Significant Mon/Rep	
		No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations	No. of Violations	No. of Systems w/ Violations
Assessment Monitoring	Fecal Presence	0	0			0	0
Compliance Monitoring						0	0
Triggered Source Water Monitoring	Fecal Presence	0	0			0	0
Failure to Meet 4-Log Removal				0	0		
Failure to correct significant deficiencies identified by sanitary survey				0	0		

Table B: Hawaii Summary of Annual PWSSP Violations for Calendar Year 2014

YrMo	pws	Qtr	SYSNAME	Viotype	Comments	DateNotify	PN Due	date public notice	SOX
1412	356	14Q4	Marine Corps Base Hawaii	TCR MCL	2 positives	12/23/14	1/23/15	E 1/13/15	1/31/15
1405	371	14Q2	Poamoho Estates	TCR MCL	2 positives	5/9/14	6/8/14	6/4/14	6/30/14
1403	422	14Q1	Kahili Mountain Park	TCR MCL	2 positives	3/12/14		3/25/14	4/30/14
1406	247	14Q2	Lower Kula	DBP M/R	did not collect THM & HAA5 samples	7/18/14	7/7/15		7/8/14
1412	338	2014	Dillingham Airfield	DBP M/R	did not collect THM & HAA5 samples	1/16/15	1/16/16	3/20/15	