

CONTAMINANTS TO BE TESTED IN ALL NEW SOURCES OF DRINKING WATER

(Based on Chapter 11-20, effective November 28, 2011 and Code of Federal Regulations Title 40, Part 141 of July 1, 2011, the Phase I and Phase II Rule effective January 1, 1993, and the Phase V Rule effective January 17, 1994)

MICROBIOLOGICAL

Total Coliform
Fecal Coliform (MPN) or E. Coli
Microscopic Particulate Analysis (*surface water sources, springs, shafts, tunnels, and wells with less than 50 feet of solid grouting - by EPA Consensus Method, EPA 910/0-92-029, October 1992*)

WATER QUALITY PARAMETERS

Alkalinity
Calcium
Chlorine residual
Conductivity
pH (field measurement)
Temperature (field measurement)
Turbidity

INORGANIC CHEMICALS

Antimony
Arsenic
Asbestos
Barium
Beryllium
Cadmium
Chromium
Copper
Cyanide
Fluoride
Lead
Mercury
Nickel
Nitrate (as nitrogen)
Nitrite (as nitrogen)
Selenium
Thallium

ORGANIC CHEMICALS

Volatile Organic Chemicals

Benzene
Carbon Tetrachloride
Chlorobenzene
o-Dichlorobenzene
p-Dichlorobenzene
1,2-Dichloroethane
1,1-Dichloroethylene
cis-1,2-Dichloroethylene
trans-1,2-Dichloroethylene
Dichloromethane
1,2-Dichloropropane (DCP)
Ethylbenzene

Volatile Organic Chemicals (cont.)

Styrene
Tetrachloroethylene
Toluene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
1,2,4-Trichlorobenzene
Trichloroethylene
Vinyl Chloride
Xylenes (total)

Synthetic Organic Chemicals

2,4-D
Alachlor
Aldicarb
Aldicarb Sulfone
Aldicarb Sulfoxide
Atrazine
Benzo(a)Pyrene
Carbofuran
Chlordane
Dalapon
Dibromochloropropane (DBCP)
Di(2-ethylhexyl)adipate
Di(2-ethylhexyl)phthalate
Dinoseb
Diquat
Dioxin (2,3,7,8-TCDD)
Endothall
Endrin
Ethylene Dibromide (EDB)
Glyphosate
Heptachlor
Heptachlor epoxide
Hexachlorobenzene
Hexachlorocyclopentadiene
Lindane
Methoxychlor
Oxamyl (Vydate)
Pentachlorophenol
Picloram
Polychlorinated biphenyls (PCBs)
2,4,5-TP (Silvex)
Simazine
Toxaphene
1,2,3-Trichloropropane (TCP)

RADIONUCLIDES

Beta/photon emitters
Gross alpha particle
Combined radium 226/228
Uranium

NOTES:

- (1) With the exception of turbidity and water quality parameters, all analyses must be performed by a laboratory certified or approved by the Hawaii Department of Health, State Laboratories Division. However, turbidity and water quality parameters must be done using EPA approved methods.
- (2) Please consult with the Safe Drinking Water Branch for acceptable laboratories to perform Microscopic Particulate Analysis.
- (3) All laboratory reports must be submitted to allow the Department of Health to verify that the analyses were performed by an approved laboratory, using EPA approved methods for drinking water analysis. The EPA method and detection levels must be clearly stated for each chemical contaminant tested.

The Director of Health may require additional analyses whenever appropriate to evaluate the new source.

SURFACE WATER AND GROUNDWATER UNDER THE DIRECT INFLUENCE OF SURFACE WATER (GWUDI) SOURCES ONLY:

The following additional water quality parameters may be required by the State at its discretion:

- *Cryptosporidium*, *Giardia*, *E. coli* and Turbidity monthly for 24 months
- Wet and dry weather Microscopic Particulate Analyses (MPA) using *Consensus Method for Determining Groundwaters Under the Direct Influence of Surface Water Using Microscopic Particulate Analysis (MPA)*, EPA 910/9 29-029 (October 1992)
- Particle sizing analysis (down to 2 µm) shall accompany MPA analyses. Results shall be tabulated, segregated by size in bins reflective of *Cryptosporidium* and *Giardia* sized particles, as well as those particles smaller and larger in size, e.g. <2 um, 2-5 um, 5-15 um, 15-30 um, 30-50 um, 50-100 um, >100 um.
- Total Suspended Solids (TSS)
- Color (True and Apparent)
- Total Organic Carbon (TOC)
- Dissolved Organic Carbon (DOC) fraction
- Total Trihalomethane Formation Potential (TTHM FP)
- Five Haloacetic Acid Formation Potential (HAA5 FP)

Additional source water sampling is required for surface water and GWUDI sources where Alternative Filtration Technologies (e.g. microfiltration, reverse osmosis, etc.) are proposed to meet the requirements of the Surface Water Treatment Rules. Refer to *Guidance for Use of Alternative Filtration Technologies* for all requirements for Alternative Filtration Technologies.