

LIST OF ABBREVIATIONS

ANSI	American National Standards Institute
AOB	ammonia oxidizing bacteria
AOC	assimilable organic carbon
APHA	American Public Health Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
atm	atmosphere
ATP	adenosine triphosphate
AVG	distribution system average water age site
AW	American Water
AWWA	American Water Works Association
AwwaRF	Awwa Research Foundation
BDOC	Biodegradable organic carbon
Btu/lb	British thermal units per pound
CCR	consumer confidence report
cfu	colony forming units
CGA	Compressed Gas Association
cm	centimeter
CNBr	cyanogen bromide
CNCl	cyanogen chloride
CNX	cyanogen halide
cPVC	chlorinated polyvinyl chloride
CR	Neoprene
CT	concentration of disinfectant (mg/L) multiplied by contact time (minutes)
°C	degrees Celsius
DADMAC	poly-diallylmethylammonium chloride
DBP	disinfection by-product
D/DBP	disinfectants/disinfection by-product
DM3S	dimethyltrisulfide
DMA	dimethylamine
DNA	deoxyribo nucleic acid
DOC	dissolved organic carbon
DOT	Department of Transportation
DOX	dissolved organic halogen
DPD	N,N-diethyl-p-phenylenediamine
DS	distribution system
DSE	distribution system equivalent site
E ⁰	standard electrode potential
EBMUD	East Bay Municipal Utility District
EPA	Environmental Protection Agency

EPDM	ethylene propylene diene monomer
EWC	Evansburg Water Company
°F	degrees Fahrenheit
FKM	Fluorocarbon
FPA	flavor profile analysis
FRA	flavor rating assessment
FRP	fiber reinforced plastic
GAC	granular activated carbon
gal	gallons
GVWD	Greater Vancouver Water District
GWUDI	ground water under the direct influence of surface water
h or hr	hour
HAA	haloacetic acid
HAA ₅	sum of five haloacetic acids
HAA ₆	sum of six haloacetic acids
HAA ₉	sum of nine haloacetic acids
HAZWOPER	hazardous waste operations and emergency response
HPC	heterotrophic plate count
I	Unidentified monochloramine autodecomposition intermediate
ICR	Information Collection Rule
IESWTR	Interim Enhanced Surface Water Treatment Rules
in.	inch
ITA	Instrument Testing Association
ISE	ion-selective electrode
J	Joule
J/g	Joule per gram
k	reaction rate
k _{csc}	chloramine stability coefficient
kg/L	kilogram per liter
kPa	kilopascals
L	liter
lb	pounds
lb/d	pounds per day
L/min	liter per minute
LT1ESWTR	Long Term 1 Enhanced Surface Water Treatment Rules
LT2ESWTR	Long Term 2 Enhanced Surface Water Treatment Rules
M	molarity (moles per kg solvent)
mM	millimoles per kg of solvent

m ³	cubic meters
MAX	distribution system maximum water age site
MCL	maximum contaminant level
MIB	methylisoborneol
min	minute
MG	million gallons
MGD or mgd	million gallons per day
mg	milligram
mg/L	milligrams per liter
mil/yr	mils per year
mL	milliliter
mol/L	moles per liter
mol/L-S	moles per liter-second
MRDL	maximum residual disinfectant level
mW	milliwatt
MWDSC	Metropolitan Water District of Southern California
NA	not applicable/available
NBR	Nitrile
NDMA	N-nitrosodimethylamine
NDR	no data reported
NEC	National Electric Code
ng/L	nanograms per liter
nm	nanometer
NMR	nuclear magnetic resonance
NOB	nitrite-oxidizing bacteria
NOM	natural organic matter
NPOCl	non-purgeable organic chlorine
NPOX	non-purgeable organic halogen
NR	natural rubber
NSF	National Sanitation Foundation
OSHA	Occupational Safety and Health Administration
O&M	Operations and maintenance
PAC	project advisory committee
PAWC	Pennsylvania-American Water Company
pcf	pounds per cubic foot
ppm	parts per million
psia	pounds per square inch - absolute
psig	pounds per square inch - gauge
PSM	process safety management
PVC	polyvinyl chloride
PWB	Portland Water Bureau

RAA	running annual average
RMP	risk management plan
R/O	reverse osmosis
s	second
SBR	synthetic rubber
SCADA	supervisory control and data acquisition
SDWA	Safe Drinking Water Act
SFPUC	San Francisco Public Utilities Commission
s.g.	specific gravity
SI	polysiloxane
SWTP	source water treatment plant
SWTR	Surface Water Treatment Rule
TCR	Total Coliform Rule
TDS	total dissolved solids
THM	trihalomethane
THM ₄	sum of four trihalomethane
THMFP	trihalomethane formation potential
TIC	total inorganic carbon
TOC	total organic carbon
TOX	total organic halogen
TTHM	total trihalomethane
T&O	taste and odor
UBC	Uniform Building Code
UFC	Uniform Fire Code
USEPA	United States Environmental Protection Agency
USL	Upper San Leandro
UV	ultraviolet
V	volt
WPCF	Water Pollution Control Federation
WTP	water treatment plant
µg/L	micrograms per liter
µ	microns
µmhos/cm	micro-mhos per centimeter
\$/ton	dollars per ton
\$/mil gal	dollars per million gallon