



NSF/ANSI STANDARD 53 (Health Effects)

This system has been tested according to NSF/ANSI Standard 53 for reduction of the substances listed below. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI Standard 53.

SUBSTANCE	INFLUENT CHALLENGE CONCENTRATION (mg/L)	MAX. PERMISSIBLE PRODUCT WATER CONCENTRATION (mg/L)	CHEMICAL REDUCTION PERCENT
alachlor	0.050	0.001	>98%
atrazine	0.100	0.003	>97%
benzene	0.081	0.001	>99%
carbofuran	0.190	0.001	>99%
carbon tetrachloride	0.078	0.0018	98%
chlorobenzene	0.077	0.001	>99%
chloropicrin	0.015	0.0002	99%
2,4-D	0.110	0.0017	98%
dibromochloropropane (DBCP)	0.052	0.00002	>99%
o-dichlorobenzene	0.080	0.001	>99%
p-dichlorobenzene	0.040	0.001	>98%
1,2-dichloroethane	0.088	0.0048	>95%
1,1-dichloroethylene	0.083	0.001	>99%
cis-1,2-dichloroethylene	0.170	0.0005	>99%
trans-1,2-dichloroethylene	0.086	0.001	>99%
1,2-dichloropropane	0.080	0.001	>99%
cis-1,3-dichloropropylene	0.079	0.001	>99%
dinoseb	0.170	0.0002	99%
endrin	0.053	0.00059	99%
ethylbenzene	0.088	0.001	>99%
ethylene dibromide (EDB)	0.044	0.00002	>99%
haloacetonitriles (HAN):			
bromochloroacetonitrile	0.022	0.0005	98%
dibromoacetonitrile	0.024	0.0006	98%
dichloroacetonitrile	0.0096	0.0002	98%
trichloroacetonitrile	0.015	0.0003	98%
haloketones (HK):			
1,1-dichloro-2-propanone	0.0072	0.0001	99%
1,1,1-trichloro-2-propanone	0.0082	0.0003	96%
heptachlor (H-34, Heptox)	0.08	0.0001	>99%

[continued]

SUBSTANCE	INFLUENT CHALLENGE CONCENTRATION (mg/L)	MAX. PERMISSIBLE PRODUCT WATER CONCENTRATION (mg/L)	CHEMICAL REDUCTION PERCENT
heptachlor epoxide	0.0107	0.0002	98%
hexachlorobutadiene	0.044	0.001	>98%
hexachlorocyclopentadiene	0.060	0.000002	>99%
lindane	0.055	0.00001	>99%
methoxychlor	0.050	0.0001	>99%
pentachlorophenol	0.096	0.001	>99%
simazine	0.120	0.004	>97%
styrene	0.150	0.0005	>99%
1,1,2,2-tetrachloroethane	0.081	0.001	>99%
tetrachloroethylene	0.081	0.001	>99%
toluene	0.078	0.001	>99%
2,4,5-TP (silvex)	0.270	0.0016	99%
tribromoacetic acid	0.042	0.001	>98%
1,2,4-trichlorobenzene	0.160	0.0005	>99%
1,1,1-trichloroethane	0.084	0.0046	>95%
1,1,2-trichloroethane	0.150	0.0005	>99%
trichloroethylene	0.180	0.001	>99%
trihalomethanes (includes):			
chloroform (surrogate chemical)	0.300	0.015	95%
bromoform			
bromodichloromethane			
chlorodibromomethane			
xylenes (total)	0.070	0.001	>99%

SUBSTANCE	INFLUENT CHALLENGE CONCENTRATION	REDUCTION REQUIREMENT	ACTUAL % REDUCTION
cyst (cryptosporidium, giardia)	min. 50,000/L	99.95%	>99.99%

SUBSTANCE	INFLUENT CHALLENGE CONCENTRATION (mg/L)	MAX. PERMISSIBLE PRODUCT WATER CONCENTRATION (mg/L)	CHEMICAL REDUCTION PERCENT
lead (pH 6.5)	0.15 ± 10%	0.010	>99%
lead (pH 8.5)	0.15 ± 10%	0.010	>99%
MTBE (methyl tert-butyl ether)	0.015 ± 10%	0.005	>94.3%

NSF/ANSI STANDARD 42 (Aesthetic Effects)

This System has been tested according to NSF/ANSI Standard 42 for reduction of the substances listed below. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI Standard 42.

SUBSTANCE	INFLUENT CHALLENGE CONCENTRATION	REDUCTION REQUIREMENT	ACTUAL % REDUCTION
chlorine	2.0 mg/L ± 10%	≥50%	93.1%
chloramine	3.0 mg/L ± 10%	0.5 mg/L	93.1%
particulate*	at least 10,000 particles/mL	≥85%	>99%

*Class 1 particles 0.5 to <1 µm

Testing is conducted with actual contaminated water at high influent challenge levels. These high influent challenges are established using "occurrence" data from

such agencies as USGS (United States Geological Survey) and USEPA (United States Environmental Protection Agency). These challenges are then set at the 95% occurrence for these contaminants. If there is no occurrence data on which to base the influent challenge, the Standard uses three (3) times the regulated level for the influent challenge. These filters are then tested to ensure that they reduce the contaminant below the regulated level for safe consumption. While testing was performed under standard laboratory conditions, actual performance may vary.

Percent reduction reflects the allowable claims for reduction of Volatile Organic Compounds (VOCs) based on NSF International Standard No 53 tables and the corresponding Influent Concentrations, for all systems which have a demonstrated capacity to reduce Chloroform by 95% or better (Chloroform is used as a "surrogate" chemical for all VOC reduction claims). Actual testing of the CT-35E systems conducted by NSF International (tested to 120% of claimed capacity) demonstrated a 99.7% reduction rate for the removal of Chloroform.

