

REFERENCE 3

Risk Based Clean-up Levels Tennessee Division of Underground Storage Tanks

Effective April 1, 2007

Resident Child

CHEMICALS OF CONCERN	SUB-SURFACE SOIL	GROUND WATER	GROUND WATER
	Indoor Inhalation of Vapor Emissions Resident Child (ppm)	Indoor Inhalation of Vapor Emissions Resident Child (ppm)	Ingestion of Water Resident Child (ppm)
Benzene	7.29E-02	7.20E-02	5.00E-03
Toluene	6.78E+00	4.31E+00	1.00E+00
Ethylbenzene	1.43E+02	1.03E+01	7.00E-01
Xylenes (Total)	9.60E+00	3.57E+00	1.00E+01
MtBE	3.96E+01	1.75E+02	2.00E-02
Acenaphthene	NA	NA	9.39E-01
Acenaphthylene	NA	NA	9.39E-01
Anthracene	NA	NA	4.34E-02
Benzo(a)anthracene	NA	NA	1.17E-03
Benzo(a)pyrene	NA	NA	2.00E-04
Benzo(b)fluoranthene	NA	NA	1.17E-03
Benzo(g,h,i)perylene	NA	NA	7.00E-04
Benzo(k)fluoranthene	NA	NA	8.00E-04
Chrysene	NA	NA	1.60E-03
Dibenzo(a,h)anthracene	NA	NA	1.17E-04
EDB	1.80E-01	8.55E-02	5.00E-05
EDC	7.55E-03	2.67E-02	5.00E-03
Fluoranthene	NA	NA	2.06E-01
Fluorene	NA	NA	6.26E-01
Indeno(1,2,3-c,d)pyrene	NA	NA	1.17E-03
Naphthalene	1.35E+02	9.81E+00	2.00E-02
Phenanthrene	NA	NA	4.69E-01
Pyrene	NA	NA	1.35E-01
Cadmium	NA	NA	5.00E-03
Chromium	NA	NA	1.00E-01
Lead	NA	NA	1.50E-02
Silver	NA	NA	1.00E-01
Zinc	NA	NA	5.00E+00

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Commercial/ Industrial Worker

CHEMICALS OF CONCERN	SUB-SURFACE SOIL	GROUND WATER	GROUND WATER
	Indoor Inhalation of Vapor Emissions Commercial/Industrial Worker (ppm)	Indoor Inhalation of Vapor Emissions Commercial/Industrial Worker (ppm)	Ingestion of Water Commercial/Industrial Worker (ppm)
Benzene	3.80E+00	3.75E-01	5.00E-03
Toluene	6.22E+01	3.96E+01	1.00E+00
Ethylbenzene	1.31E+03	9.48E+01	7.00E-01
Xylenes (Total)	8.80E+01	3.27E+01	1.00E+01
MtBE	3.64E+02	1.61E+03	2.00E-02
Acenaphthene	NA	NA	9.39E-01
Acenaphthylene	NA	NA	9.39E-01
Anthracene	NA	NA	4.34E-02
Benzo(a)anthracene	NA	NA	1.17E-03
Benzo(a)pyrene	NA	NA	2.00E-04
Benzo(b)fluoranthene	NA	NA	1.17E-03
Benzo(g,h,i)perylene	NA	NA	7.00E-04
Benzo(k)fluoranthene	NA	NA	8.00E-04
Chrysene	NA	NA	1.60E-03
Dibenzo(a,h)anthracene	NA	NA	1.17E-04
EDB	1.05E+00	4.99E-01	5.00E-05
EDC	1.66E-02	5.87E-02	5.00E-03
Fluoranthene	NA	NA	2.06E-01
Fluorene	NA	NA	6.26E-01
Indeno(1,2,3-c,d)pyrene	NA	NA	1.17E-03
Naphthalene	4.03E+02	3.10E+01	2.00E-02
Phenanthrene	NA	NA	4.69E-01
Pyrene	NA	NA	1.35E-01
Cadmium	NA	NA	5.00E-03
Chromium	NA	NA	1.00E-01
Lead	NA	NA	1.50E-02
Silver	NA	NA	1.00E-01
Zinc	NA	NA	5.00E+00

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Surface Waters

CHEMICALS OF CONCERN	Domestic Water Supply Use* (ppm)	Water and Organisms Use* (ppm)
Benzene	5.00E-03	5.10E-01
Toluene	1.00E+00	2.00E+02
Ethylbenzene	7.00E-01	2.90E+01
Xylenes (Total)	1.00E+01	N/A
MtBE	N/A	N/A
EDB	5.00E-05	N/A
EDC	5.00E-03	3.70E-01
Acenaphthene	N/A	9.90E-01
Acenaphthylene	N/A	N/A
Anthracene	N/A	4.00E+01
Benzo(a)anthracene	N/A	1.80E-04
Benzo(a)pyrene	2.00E-04	1.80E-04
Benzo(b)fluoranthene	N/A	1.80E-04
Benzo(g,h,i)perylene	N/A	N/A
Benzo(k)fluoranthene	N/A	1.80E-04
Chrysene	N/A	1.80E-04
Dibenzo(a,h)anthracene	N/A	1.80E-04
Fluoranthene	N/A	1.40E-01
Fluorene	N/A	5.30E+00
Indeno(1,2,3-c,d)pyrene	N/A	1.80E-04
Naphthalene	N/A	N/A
Phenanthrene	N/A	N/A
Pyrene	N/A	4.00E+00
Cadmium	5.00E-03	N/A
Chromium	1.00E-01	N/A
Lead	5.00E-03	N/A
Silver	N/A	N/A
Zinc	N/A	N/A

* General Water Quality Criteria - Rule 1200-4-3-.03