



# **DIVISION OF UNDERGROUND STORAGE TANKS**

## **RISK-BASED CLEANUP LEVELS (RBCLs)**

**Control Number UST-G-3-RBCLs-102722**

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UST-G-03-RBCLs-102722  
Risk-Based Cleanup Levels

**SIGNATURES:**

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**REVISION HISTORY TABLE**

<b>Revision Number</b>	<b>Date</b>	<b>Brief Summary of Change</b>
0	12/04/2004	Issuance of Guidance: Technical Guidance Document (TGD) - 017
1	12/01/2005	Revision of TGD-017
2	09/01/2006	Revision of TGD-017
3	10/27/2022	Revision of RBCLs to: include correct spelling of Dibenz(a,h)anthracene, correct surface water values and nomenclature, and update reference for surface water



**RISK-BASED CLEANUP LEVELS**

<b>Volatilization to Indoor Air</b>				
<b>CHEMICALS OF CONCERN</b>	<b>Subsurface Soil</b>		<b>Groundwater</b>	
	<b>Residential (ppm)</b>	<b>Commercial (ppm)</b>	<b>Residential (ppm)</b>	<b>Commercial (ppm)</b>
Benzene	0.0729	3.80	0.072	0.375
Toluene	6.78	62.2	4.31	39.6
Ethylbenzene	143	1,310	10.3	94.8
Xylenes (Total)	9.6	88	3.57	32.7
MtBE	39.6	364	175	1,610
Acenaphthene	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA
EDB	0.18	1.05	0.0855	0.499
EDC	0.00755	0.0166	0.0267	0.0587
Fluoranthene	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA
Indeno(1,2,3-c,d)pyrene	NA	NA	NA	NA
Naphthalene	135	403	9.81	31
Phenanthrene	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Silver	NA	NA	NA	NA
Zinc	NA	NA	NA	NA



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Other Pathways or Points of Exposure			
CHEMICALS OF CONCERN	Groundwater	Surface Water	
	Ingestion (ppm)	Domestic Water Supply Use* (ppm)	Organisms Only Use** (ppm)
Benzene	0.005	0.005	0.51
Toluene	1	1	15
Ethylbenzene	0.7	0.7	2.1
Xylenes (Total)	10	10	NA
MtBE	0.02	NA	NA
Acenaphthene	0.939	NA	0.99
Acenaphthylene	0.939	NA	NA
Anthracene	0.0434	NA	40
Benzo(a)anthracene	0.00117	NA	0.00018
Benzo(a)pyrene	0.0002	0.0002	0.00018
Benzo(b)fluoranthene	0.00117	NA	0.00018
Benzo(g,h,i)perylene	0.0007	NA	NA
Benzo(k)fluoranthene	0.0008	NA	0.00018
Chrysene	0.0016	NA	0.00018
Dibenz(a,h)anthracene	0.000117	NA	0.00018
Ethylene Dibromide (EDB)	0.00005	0.00005	NA
Ethylene Dichloride (EDC)	0.005	0.005	0.37
Fluoranthene	0.206	NA	0.14
Fluorene	0.626	NA	5.3
Indeno(1,2,3-c,d)pyrene	0.00117	NA	0.00018
Naphthalene	0.02	NA	NA
Phenanthrene	0.469	NA	NA
Pyrene	0.135	NA	4
Cadmium	0.005	0.005	NA
Chromium	0.1	0.1	NA
Lead	0.015***	0.005	NA
Silver	0.1	NA	NA
Zinc	5	NA	NA

\* General Water Quality Criteria – Rule 0400-40-03-.03(1)(j)

\*\* General Water Quality Criteria – Rule 0400-40-03.03(4)(j)

\*\*\* Lead is set at EPA action level