

Florida Cleanup Standards for Hydrocarbon Contaminated Groundwater

Parameter/Constituent ²	Lab Test Protocol & Number	Cleanup Level
Benzene	EPA 602, 624, 8021 or 8260	1 µg/L
Ethylbenzene	EPA 602, 624, 8021 or 8260	30 µg/L
Toluene	EPA 602, 624, 8021 or 8260	40 µg/L
Total Xylenes	EPA 602, 624, 8021 or 8260	20 µg/L
MTBE	EPA 602, 624, 8021 or 8260	20 µg/L
Acenaphthene	EPA 610 (by HPLC), 625, 8270 or 8310	20 µg/L
Acenaphthylene	EPA 610 (by HPLC), 625, 8270 or 8310	210 µg/L
Anthracene	EPA 610 (by HPLC), 625, 8270 or 8310	2100 µg/L
Benzo(a)anthracene	EPA 610 (by HPLC), 625, 8270 or 8310	0.05 µg/L
Benzo(a)pyrene	EPA 610 (by HPLC), 625, 8270 or 8310	0.2 µg/L
Benzo(b)fluoranthene	EPA 610 (by HPLC), 625, 8270 or 8310	0.05 µg/L
Benzo(g,h,i)perylene	EPA 610 (by HPLC), 625, 8270 or 8310	210 µg/L
Benzo(k)fluoranthene	EPA 610 (by HPLC), 625, 8270 or 8310	0.5 µg/L
Chrysene	EPA 610 (by HPLC), 625, 8270 or 8310	4.8 µg/L
Dibenz(a,h)anthracene	EPA 610 (by HPLC), 625, 8270 or 8310	0.005 µg/L
Fluoranthene	EPA 610 (by HPLC), 625, 8270 or 8310	280 µg/L
Fluorene	EPA 610 (by HPLC), 625, 8270 or 8310	280 µg/L
Indeno(1,2,3-c,d)pyrene	EPA 610 (by HPLC), 625, 8270 or 8310	0.05 µg/L

Naphthalene	EPA 610 (by HPLC), 625, 8270 or 8310	14 µg/L
1-Methylnaphthalene	EPA 610 (by HPLC), 625, 8270 or 8310	28 µg/L
2-Methylnaphthalene	EPA 610 (by HPLC), 625, 8270 or 8310	28 µg/L
Phenanthrene	EPA 610 (by HPLC), 625, 8270 or 8310	210 µg/L
Pyrene	EPA 610 (by HPLC), 625, 8270 or 8310	210 µg/L
1,2-dichloroethane	EPA 601, 624, 8021 or 8260	3 µg/L
1,2-dibromoethane (EDB)	EPA 504, 504.1 or 8011	0.02 µg/L
Arsenic	EPA 200.7, 200.8, 200.9, 6010, 6020 or 7061	10 µg/L
Cadmium	EPA 200.7, 200.8, 200.9, 6010, 6020 or 7131	5 µg/L
Chromium	EPA 200.7, 200.8, 200.9, 6010 or 6020	100 µg/L
Lead	EPA 200.7, 200.8, 200.9, 6010 or 6020	15 µg/L
TRPHs	FL-PRO	5000 µg/L

Note: The Practical Quantitation Limits shall meet the specified cleanup target levels. If a cleanup target level is lower than the empirical Practical Quantitation Limit (determined in accordance with the Florida DEP publication “Guidance with the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits” dated October 12, 2004) then the Practical Quantitation Limit (not to exceed the target Practical Quantitation Limit listed in that publication) becomes the alternative cleanup target level.

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Florida Cleanup Standards for Hydrocarbon Contaminated Soil

Parameter/ Constituent ¹	Lab Test Protocol & Number	Direct Exposure Residential (mg/kg)	Leachability Based on Groundwater Criteria (mg/kg)
Acenaphthene	EPA 8100, 8270 or 8310	2400	2.1
Acenaphthylene	EPA 8100, 8270 or 8310	1800	27
Anthracene	EPA 8100, 8270 or 8310	21000	2500
Benzo(a)anthracene	EPA 8100, 8270 or 8310	#	.8
Benzo(a)pyrene	EPA 8100, 8270 or 8310	0.1	8
Benzo(b)fluoranthene	EPA 8100, 8270 or 8310	#	2.4
Benzo(g,h,i)perylene	EPA 8100, 8270 or 8310	2500	32000
Benzo(k)fluoranthene	EPA 8100, 8270 or 8310	#	24
Chrysene	EPA 8100, 8270 or 8310	#	77
Dibenz(a,h)anthracene	EPA 8100, 8270 or 8310	#	.7
Fluoranthene	EPA 8100, 8270 or 8310	3200	1200
Fluorene	EPA 8100, 8270 or 8310	2600	160
Indeno(1,2,3-cd)pyrene	EPA 8100, 8270 or 8310	#	6.6
Naphthalene	EPA 8100, 8270 or 8310	55	1.2
1-Methylnaphthalene	EPA 8100, 8270 or 8310	200	3.1
2-Methylnaphthalene	EPA 8100, 8270 or 8310	210	8.5
Phenanthrene	EPA 8100, 8270 or 8310	2200	250

Pyrene	EPA 8100, 8270 or 8310	2400	880
Benzene	EPA 8021, 8260	1.2	0.007
Ethylbenzene	EPA 8021, 8260	1500	0.6
Toluene	EPA 8021, 8260	7500	0.5
Total Xylenes	EPA 8021, 8260	130	0.2
MTBE	EPA 8021, 8260	4400	.09
TRPHs	FL-PRO	460	340
Arsenic	EPA 6010, 6020 or 7061	2.1	*
Cadmium	EPA 6010, 6020 or 7131	82	7.5
Chromium	EPA 6010, 6020, or 7191	210	38
Lead	EPA 6010 or 6020	400	*

Note: The Practical Quantitation Limits shall meet the specified cleanup target levels. If a cleanup target level is lower than the empirical Practical Quantitation Limit (determined in accordance with the Florida DEP publication "Guidance with the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits" dated October 12, 2004) then the Practical Quantitation Limit (not to exceed the target Practical Quantitation Limit listed in that publication) becomes the alternative cleanup target level.

* Leachability value may be determined using TCLP.

Each concentration must be converted to Benzo(a)pyrene equivalent (see pp. 61-62 of the February 2005 Technical Report). The total sum concentration for the 7 carcinogenic PAHs cannot exceed the cleanup target level of benzo(a)pyrene.

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