



STORAGE TANK SYSTEM CLOSURE ASSESSMENT REQUIREMENTS

DIVISION OF WASTE MANAGEMENT
BUREAU OF PETROLEUM STORAGE SYSTEMS
STORAGE TANK REGULATION SECTION
Revised April 1998

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STORAGE TANK SYSTEM CLOSURE ASSESSMENT REQUIREMENTS

Introduction

Chapter 62-761, Florida Administrative Code (F.A.C.), requires an owner or operator of a regulated substance storage tank system to perform a closure assessment at the time of permanent closure or replacement, prior to installing secondary containment, and during the change in service from a regulated substance to a non-regulated substance. The purpose of this document is to establish minimum guidance for conducting Storage Tank System Closure Assessments that meet the requirements of Chapter 62-761, F.A.C. The intent of the assessment is to determine if any contamination resulted from the operation of the storage tank system and if sufficient contamination is present to warrant further assessment in accordance with Chapter 62-770, F.A.C. Please contact the Storage Tank Regulation Section at (850) 488-3935, SC 278-3935, or the appropriate contracted County program, with any questions regarding the guidelines.

Special Note

These guidelines meet the closure requirements as specified in Chapter 62-761, F.A.C., and a letter will be issued indicating whether or not the Department or the County concur with the closure results. However, these guidelines do not meet the criteria to qualify for a No Further Action (NFA) as specified in Chapter 62-770, F.A.C., unless the report is signed and sealed by a registered Professional Engineer or a registered Professional Geologist and all NFA requirements of Chapter 62-770, F.A.C., were met.

A. Sites Not Required To Perform A Closure Assessment

1. Pursuant to Rule 62-761.800(4)(b), F.A.C., a closure assessment is not required for:
 - a. Systems with documented contamination requiring a site assessment in accordance with Chapter 62-770, F.A.C., including those discharges that are eligible for the Early Detection Incentive Program (EDI), the Florida Petroleum Liability and Restoration Insurance Program (FPLRIP), and the Petroleum Cleanup Participation Program (PCPP), and that have not been issued a Site Rehabilitation Completion Order,
 - b. Systems initially installed with secondary containment, provided that no unexplained positive response of an interstitial release detection device or method occurred during the operational life of the system, or the secondary containment passed a breach of integrity test prior to closure,
 - c. Systems upgraded with secondary containment that have closed interstitial spaces, where a closure assessment was performed prior to installation of secondary containment, provided the secondary containment passed an interstitial breach of integrity test in accordance with Rule 62-761.640(3)(a), F.A.C.,
 - d. Double-walled shop-fabricated aboveground tanks, or
 - e. Aboveground systems with storage capacities less than 1,100 gallons that are upgrading with secondary containment, and that are elevated from and not in contact with the soil. Instead of performing a closure assessment, a visual inspection of the system and ground surface underneath it for signs of a discharge may be performed. Written certification should be provided to the County within 10 days before installation of the secondary containment, documenting that there has been no discharge (the documentation may include photographs).

Special Note (Limited Summary Report)

When a system removal, replacement or upgrade is performed at a site identified in Section A.1.a., a limited summary report should still be prepared and submitted. The report should describe the work that was performed at the site during the system removal, replacement or upgrade, and summarize (according to the guidelines described in Section H) any data collected at that time. If the report is intended to be used to demonstrate that all NFA requirements of Chapter 62-770, F.A.C., have been met, a detailed closure assessment must be performed, as described below, and the report must be signed and sealed by a registered Professional Engineer or a registered Professional Geologist.

B. General Sampling Guidelines

All samples must be analyzed using approved methods listed in Chapter 62-770, F.A.C., or methods approved through protocols described in Rule 62-160.400(6), (7) and (8), F.A.C. In addition, the method detection limits must meet the cleanup target levels specified in Table V and in column 1 (direct exposure I) and column 3 (leachability Table V) of Table IV of Chapter 62-770, F.A.C., except that for groundwater samples a maximum method detection limit of 1 part per billion (ppb) is acceptable for polycyclic aromatic hydrocarbons with cleanup target levels lower than 1 ppb.

1. Gasoline and Kerosene Analytical Groups

a. Soil Samples

- (1) Soil samples obtained during closure of a storage system classified in the Gasoline Analytical Group or in the Kerosene Analytical Group, as defined in Chapter 62-770, F.A.C., should be screened in the field using an instrument or method approved by the Department, and a sample from the location in each source area that yields the highest hydrocarbon measurement should be analyzed for volatile organic aromatics, polycyclic aromatic hydrocarbons and total recoverable petroleum hydrocarbons. If no positive screening results are obtained, the sample should be collected from the location believed to be most likely to have contamination, such as next to a fill port.
 - (a) If an organic vapor analysis instrument with a Flame Ionization Detector (FID) or a Photo Ionization Detector (PID) is used, it must be in the survey mode. PIDs should not be used in situations where humidity will interfere with the instrument's sensitivity (i.e., during rainy periods, measuring moist or wet soil). Readings must be obtained from the headspace of samples in half-filled, 16-ounce jars. Each soil sample should be obtained from the vadose zone (the area above the water table), brought (if necessary) to a temperature of between 20°C. (68°F.) and 32°C. (90°F.), and the reading obtained five minutes thereafter. If an FID is used, each soil sample must be split into two jars, and one of the readings must be obtained with the use of an activated charcoal filter unless the unfiltered reading is 10 parts per million (ppm) or less. The total corrected hydrocarbon measurement must be determined by subtracting the filtered reading from the unfiltered reading. Analytical instruments must be calibrated in accordance with the manufacturer's instructions.
- (2) If soil that yields positive field screening results (hydrocarbon measurements greater than 10 ppm) is identified and remains on-site, a site assessment will have to be performed, unless a grab sample from the location in each source area (tank farm, integral piping, dispenser) that yields the highest hydrocarbon measurement is analyzed for volatile organic aromatics, polycyclic aromatic hydrocarbons and total recoverable petroleum hydrocarbons, and the analytical results show that contaminants do not exceed the default soil cleanup target levels specified in Table IV of Chapter 62-770, F.A.C. (direct exposure I concentrations illustrated in column 1 and leachability based on Table V concentrations illustrated in column 3; see attached table). If the evidence suggests that products from both the Gasoline Analytical Group and Kerosene Analytical

Group were released at different locations within a source area, then the sample from each distinct product area with the highest hydrocarbon measurement should be collected for laboratory analyses.

- (3) If contaminated soil is identified and excavated, a minimum of four or five samples (at least one from the bottom of the excavation if the water table was not reached and at least four from the walls of the excavation) should be obtained for field screening. The sample that yields the highest hydrocarbon measurement should be analyzed for volatile organic aromatics, polycyclic aromatic hydrocarbons and total recoverable petroleum hydrocarbons. If no positive screening results are obtained, the sample should be collected from the location believed to be most likely to have contamination.

b. Groundwater Samples

- (1) Groundwater samples obtained during closure of a storage tank system classified in the Gasoline Analytical Group must be analyzed for volatile organic aromatics (including total xylenes) and MTBE.
- (2) Groundwater samples obtained during closure of a storage system that is classified in the Kerosene Analytical Group must be analyzed for volatile organic aromatics (including total xylenes) and MTBE, and polycyclic aromatic hydrocarbons.

2. Used Oil

a. Soil Samples

- (1) Soil samples obtained during closure of a used oil tank should be inspected for signs of staining or discoloration. If the tank appears to have discharged or if soil contaminated or saturated with used oil is identified and remains on-site, a sample that represents the "worst case" contamination must be analyzed for all parameters specified for used oil in Table II of Chapter 62-770, F.A.C.
- (2) If soil visually stained or saturated with used oil is identified and excavated, at least one sample should be obtained from the bottom of the excavation if the water table was not reached and at least one sample should be obtained from the wall of the excavation at an equivalent depth of the soil visually stained or saturated with used oil that was removed, and analyzed for those contaminants detected in the sample collected from the most visibly stained area or during pre-burn analyses.

b. Groundwater Samples

Groundwater samples obtained during closure of a used oil tank must be analyzed for all parameters specified for used oil in Table II of Chapter 62-770, F.A.C.

3. Quality Assurance Plans

All entities performing closure assessments must have a Comprehensive Quality Assurance Plan (CompQAP) approved by the Department in accordance with Chapter 62-160, F.A.C. All soil and groundwater sampling must be conducted in accordance with the approved CompQAP. In addition, only laboratories that have quality assurance plans approved by the Department may be used to analyze soil and groundwater samples. To obtain the procedures on CompQAP approval you may contact the Quality Assurance Section in Tallahassee at (850) 488-2796.

C. Sampling Requirements For Storage Tank Removals [see Section E for requirements during closure of integral piping and dispensers]

1. Gasoline and Kerosene Analytical Groups

a. Soil Samples

- (1) During the removal of an underground storage system, one soil sample should be collected for field screening for each soil volume measuring approximately five feet in length by five feet in width by two feet in depth, throughout the excavation of the tank(s).

Note: if it is anticipated that a very large excavation will be required, a proposal under Rule 62-761.850(1), F.A.C., should be submitted to the Storage Tank Regulation Section for approval under that rule if a different soil sampling frequency is proposed.

- (2) For an aboveground tank not exempted according to Section A, a minimum of five soil borings are required. At least four borings should be placed around the edge of the tank pad or foundation (one of them at the location where the containment area drain valve discharges; the others at the most visibly stained area on each remaining side of the tank pad or foundation, or near the center of each side if no soil staining is identified) and one boring placed directly beneath the former tank location (at the most visibly stained area, or near the center of the former tank location if no soil staining is identified). Soil must be screened at one foot intervals to a depth of five feet and at five foot intervals thereafter to the groundwater table, or to a depth of 20 feet below land surface if the water table is not encountered.

b. Groundwater Samples

- (1) Groundwater samples must be obtained when the depth to the groundwater table is less than 20 feet. If the depth to the groundwater table is greater than 20 feet, a groundwater sample is not required if the screening and laboratory results indicated that contaminated soil was not present, or if contaminated soil was identified and excavated and it is demonstrated based on the degree and horizontal and vertical extent of contamination in the excavated soil, on the type of product believed to have been discharged, and on the site stratigraphy, that groundwater should not have been affected.
 - (a) Subsequent to backfilling, a temporary monitoring well should be installed in the area that represents the "worst case" contamination as determined by the soil field screening results. If no soil contamination is found, the monitoring well should be installed near the center of the former tank location. Minimum well construction details for a temporary monitoring well require a sand pack placed around the well screen prior to sampling.
 - (b) For an aboveground tank not exempted according to Section A, a temporary monitoring well should be installed at the location that represents the "worst case" contamination as determined by the soil field screening results. If no soil contamination is found, the monitoring well should be installed near the center of the former tank location.

2. Used Oil

When a used oil tank is being removed, a visual inspection of the excavation, of the tank condition and of the removed soil should be performed to document the integrity of the tank. If the tank appears to have discharged or if soil staining is documented, and the depth to the groundwater table is less than 20 feet, a temporary monitoring well should be installed in the area that represents the "worst case" contamination as determined by the visual observations of the soil samples. If the depth to the groundwater table is greater than 20 feet, a groundwater

sample is not required if the visual observations indicated that contaminated soil was not present, or if contaminated soil was identified and excavated and it is demonstrated based on the degree and horizontal and vertical extent of contamination in the excavated soil, and on the site stratigraphy, that groundwater should not have been affected.

D. Sampling Requirements For Storage Tanks Abandoned In Place [see Section E for requirements during closure of integral piping and dispensers]

1. Gasoline and Kerosene Analytical Groups

a. Soil Samples

- (1) A minimum of four soil borings must be placed around each underground storage tank, with a maximum distance of 20 feet between borings. Each boring should be placed as close to the tank as possible, with one of them placed next to the fill port. Soil must be screened at one foot intervals to a depth of ten feet and at five foot intervals thereafter to the groundwater table, or to a depth of 20 feet below land surface if the water table is not encountered.
- (2) For an aboveground tank not exempted according to Section A, a minimum of four soil borings must be placed around the tank pad or foundation (one of them at the location where the containment area drain valve discharges; the others at the most visibly stained area on each remaining side of the tank pad or foundation, or near the center of each side if no soil staining is identified).

b. Groundwater Samples

- (1) Groundwater samples must be obtained when the depth to the groundwater table is less than 20 feet. If the depth to the groundwater table is greater than 20 feet, a groundwater sample is not required if the screening and laboratory results indicated that contaminated soil was not present, or if contaminated soil was identified and excavated and it is demonstrated based on the degree and horizontal and vertical extent of contamination in the excavated soil, on the type of product believed to have been discharged, and on the site stratigraphy, that groundwater should not have been affected.
 - (a) When compliance monitoring wells are present, one sample should be obtained from each compliance monitoring well (if only one tank of 2,000 gallon capacity or less is being closed in place, samples should be obtained only from two compliance monitoring wells, suspected to be at the downgradient and upgradient locations). If it is determined that the construction of the compliance wells is not adequate (that is, if the water table does not intersect the screened interval or if a screened interval is not present), temporary monitoring wells should be installed, as specified in (b), below, or
 - (b) If there are no compliance monitoring wells present, four temporary monitoring wells should be installed around the tank field and sampled (if only one tank of 2,000 gallon capacity or less is being closed in place, only two temporary monitoring wells should be installed, at locations suspected to be downgradient and upgradient from the tank). Minimum well construction details for a temporary monitoring well require a sand pack placed around the well screen prior to sampling.

2. Used Oil

Sample as specified in Section D.1.a. above, with the samples visually inspected to determine if the tank appears to have discharged. If the depth to the groundwater table is less than 20 feet, a temporary monitoring well should be installed in the area that represents the "worst case"

contamination as determined by the visual observations of the soil samples. If no soil staining is documented, the temporary monitoring well should be installed next to the tank, as close to the fill port as possible. If the depth to the groundwater table is greater than 20 feet, a groundwater sample is not required if the visual observations indicated that contaminated soil was not present, or if contaminated soil was identified and excavated and it is demonstrated based on the degree and horizontal and vertical extent of contamination in the excavated soil, and on the site stratigraphy, that groundwater should not have been affected.

E. Sampling Requirements For Closure Of Integral Piping And Dispensers

1. Soil Samples

- a. One soil boring must be placed approximately every 20 feet of product transfer line (piping), with the spacing determined by any evidence of contamination and location of potential sources of leaks, such as fixtures, connections and joints. The boring(s) should be located as close to the transfer line as possible, with the sampling point one foot below the line level, or immediately above the groundwater table, whichever is shallower.

Note: before closing pipelines (4 inches in diameter or larger), a proposal under Rule 62-761.850(1), F.A.C., that describes the pipeline construction (especially the length of the piping sections) should be submitted to the Storage Tank Regulation Section for approval under that rule if a different soil sampling frequency is proposed.

- b. A minimum of one soil boring must be placed directly under each product dispenser or less than three feet from each product dispenser. Samples for field screening should be obtained approximately one foot below land surface and every foot thereafter to a minimum depth of four feet, or to the groundwater table, whichever is shallower (if the appropriate FDEP District Office or County determines based on screening results that there is a need to extend any boring below 10 feet, subsequent samples may be collected every five feet). The depth of the soil boring(s) will be dependent upon the hydrocarbon vapors encountered. The ideal location for evaluating soil conditions is directly under the dispenser, if the dispenser has been removed and the area is large enough to be accessible.

2. Groundwater Samples

A groundwater sample is not required if the screening and laboratory results indicated that contaminated soil was not present, or if contaminated soil was identified and excavated and it is demonstrated based on the degree and horizontal and vertical extent of contamination in the excavated soil, on the type of product believed to have been discharged, and on the site stratigraphy, that groundwater should not have been affected.

F. Sampling Requirements During Closure Or Replacement Of Piping Sumps, Spill Containment And Dispenser Liners

1. Soil Samples

- a. One soil boring must be placed next to each submersible pump or fill port. Samples for field screening should be collected approximately one foot below land surface and every foot thereafter until the underground storage tank, or the groundwater table, is reached.
- b. A minimum of one soil boring must be placed directly under each product dispenser or less than three feet from each product dispenser. Samples for field screening should be obtained approximately one foot below land surface and every foot thereafter to a minimum depth of four feet, or to the groundwater table, whichever is shallower.

2. Groundwater Samples

A groundwater sample is not required if the screening and laboratory results indicated that contaminated soil was not present, or if contaminated soil was identified and excavated and it is demonstrated based on the degree and horizontal and vertical extent of contamination in the excavated soil, on the type of product believed to have been discharged, and on the site stratigraphy, that groundwater should not have been affected.

G. Discharge Reporting Requirements During A Tank System Closure For A Suspected Release

The Department must be notified by the facility owner or operator of a suspected release on the appropriate Discharge Report Form within 24 hours of the discovery or before the close of the Department's next business day. If any one of the following reporting criteria is met, then the closure assessment may be terminated, a closure assessment report (prepared according to the guidelines described in Section H, describing the work that was performed at the site and summarizing the data collected at that time) should be submitted and a formal site assessment initiated in accordance with Chapter 62-770, F.A.C.:

1. Soil contaminated with products classified in the Gasoline Analytical Group or in the Kerosene Analytical Group, that exceeded the default soil cleanup target levels specified in Table IV of Chapter 62-770, F.A.C. (direct exposure I concentrations illustrated in column 1 and leachability based on Table V concentrations illustrated in column 3; see attached table), remains on-site, or
2. Soil stained with used oil, that exceeded the default soil cleanup target levels specified in Table IV of Chapter 62-770, F.A.C. (direct exposure I concentrations illustrated in column 1 and leachability based on Table V concentrations illustrated in column 3; see attached table), remains on-site, or
3. Free product or a sheen of petroleum products is detected in a monitoring well or in the tank excavation area, or
4. Any of the groundwater cleanup target levels specified in Table V (and Table VII, if applicable) of Chapter 62-770, F.A.C., has been exceeded.

H. Written Report Requirements

Within 60 days of completion of the tank closure, an FDEP Closure Assessment Report should be prepared and submitted, describing the work performed and including the following:

1. A scaled site map showing the area(s) excavated and approximate locations of all samples collected;
2. A table summarizing all field and analytical results obtained, listing the approximate depth at which each sample was collected;
3. Copies of laboratory reports;
4. Information on the dimensions of the excavation(s), depth to groundwater, volume of soil excavated, and disposal method for the excavated soil; and
5. Information on the procedures (particularly on the soil field screening procedures) followed during closure.

Note: other Department rules such as 62-701, 62-730, 62-770 and 62-775, F.A.C., have specific handling and reporting requirements (for example, for the disposal of contaminated soil or water, product, sludge, tank carcasses and piping systems) that must be followed.

I. Departmental Response To Closure Assessment Reports

The FDEP District Office or County will review each storage system closure assessment submitted. The District or County will respond to the owner or operator with a letter indicating whether the closure did not indicate a discharge or if a site assessment must be initiated in accordance with Chapter 62-770, F.A.C. The District Office will initiate enforcement as necessary. If the report is intended to be used to demonstrate that all NFA requirements of Chapter 62-770, F.A.C., have been met, or if soil contamination was identified and a groundwater sample was not collected, it will be reviewed by the Bureau of Petroleum Storage Systems, FDEP District Office or contracted county cleanup program.

J. Hazardous Substance And Other Pollutant Storage Systems

Owners or operators of hazardous substance USTs are required to perform a closure assessment. The closure assessment must address the particular regulated substance stored in the storage tank system. Sampling methodology must be submitted to the FDEP District Office for approval 30 days before the storage system closure. If the sampling methodology will accurately detect any discharges that may have occurred, the FDEP will notify the owner or operator of the approval within 14 days of receipt of the sampling methodology.

TABLE IV (from Chapter 62-770, F.A.C.)
Selected Soil Cleanup Target Levels (SCTLs)

Chemicals of Concern (Organic)	Direct Exposure (mg/kg)		Leachability (mg/kg) based on:			
	I #	II ##	Table V ^a	Table VI ^b	Table VII ^c	Table VIII ^d
PAHs:						
Acenaphthene	2300	22000	4	0.6	0.6	40
Acenaphthylene	1100	11000	22	0.003*	0.003*	220
Anthracene	19000	290000	2000	0.3	0.3	20000
Benzo(a)anthracene	1.4	5.1	2.9	0.4	0.4	29
Benzo(a)pyrene	0.1	0.5	7.8	1.2	1.2	78
Benzo(b)fluoranthene	1.4	5	9.8	1.5	1.5	98
Benzo(g,h,i)perylene	2300	45000	13000	2	2	130000
Benzo(k)fluoranthene	15	52	25	1.5	1.5	250
Chrysene	140	490	80	0.5	0.5	800
Dibenzo(a,h)anthracene	0.1	0.5	14	2.2	2.2	140
Fluoranthene	2800	45000	550	0.4	0.4	5500
Fluorene	2100	24000	87	9.4	9.4	870
Indeno(1,2,3-c,d)pyrene	1.5	5.2	28	4.3	4.3	280
Naphthalene	1000	8600	1	1	1.3	10
Phenanthrene	1900	29000	120	0.02*	0.02*	1200
Pyrene	2200	40000	570	0.8	0.8	5700
VOAs:						
Benzene	1.1	1.5	0.007	0.007	0.5	0.07
Ethylbenzene**	240	240	0.4	0.4	7.7	3.8
Toluene	300	2000	0.4	0.4	4.8	4
Total Xylenes**	290	290	0.3	0.3	5.3	2.9
OTHER:						
1,2-dichloroethane	0.6	0.9	0.02	0.02	0.7	0.2
MTBE	350	6100	0.2	0.2	150	1.6
TRPHs	350	2500	340	340	340	3400
(Inorganic)						
METALS:						
Arsenic	0.8	3.7	TCLP	TCLP	TCLP	TCLP
Barium	5200	87000	TCLP	TCLP	TCLP	TCLP
Cadmium	75	1300	TCLP	TCLP	TCLP	TCLP
Chromium	290	430	TCLP	TCLP	TCLP	TCLP
Lead***	500	1000	TCLP	TCLP	TCLP	TCLP
Mercury	3.7	28	TCLP	TCLP	TCLP	TCLP
Selenium	390	10000	TCLP	TCLP	TCLP	TCLP
Silver	390	9100	TCLP	TCLP	TCLP	TCLP

Values rounded to two significant figures if greater than 1 and to one significant figure if less than 1.

Values based on residential use assumptions.

Values based on worker industrial exposure assumptions.

* Unless the Method Detection Limit (MDL) using the most sensitive and currently available technology is higher than the specified criterion.

** Direct Exposure values based on Soil Saturation Limit (C_{sat}).

*** Direct Exposure values from USEPA *Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*, OSWER Directive 9355.4-12(1994). Residential value is the middle of the USEPA suggested range of 400-600 mg/kg.

TCLP = Toxicity Characteristic Leaching Procedure. The analyses must be performed if the concentrations listed in Table II are exceeded, and need to pass test (see Table II).

^a Table V - Groundwater Cleanup Target Levels for Resource Protection/Recovery.

^b Table VI - Lower of Table V and Freshwater Surface Water Criteria.

^c Table VII - Surface Water Criteria for Resource Protection/Recovery.

^d Table VIII - Low Yield/Poor Quality.

Chemicals of Concern	Table V Groundwater Cleanup Target Levels ¹	Table VII Freshwater Surface Water Criteria ¹	Table VII Marine Surface Water Criteria ¹	Table VIII Groundwater of Low Yield/ Poor Quality	Table IX Natural Attenuation Default Source Concentrations
Benzene	1 ug/l **	71 ug/l *	71 ug/l *	10 ug/l	100 ug/l
Ethylbenzene	30 ug/l **	605 ug/l	605 ug/l	300 ug/l	300 ug/l
Toluene	40 ug/l **	475 ug/l	475 ug/l	400 ug/l	400 ug/l
Total Xylenes	20 ug/l **	370 ug/l	370 ug/l	200 ug/l	200 ug/l
MTBE	35 ug/l	33600 ug/l	33600 ug/l	350 ug/l	350 ug/l
Acenaphthene	20 ug/l	3 ug/l	3 ug/l	200 ug/l	200 ug/l
Acenaphthylene	210 ug/l	0.031 ug/l *	0.031 ug/l *	2100 ug/l	2100 ug/l
Anthracene	2100 ug/l	0.3 ug/l	0.3 ug/l	21000 ug/l	21000 ug/l
Benzo(a)anthracene	0.2 ug/l	0.031 ug/l *	0.031 ug/l *	2 ug/l	20 ug/l
Benzo(a)pyrene	0.2 ug/l **	0.031 ug/l *	0.031 ug/l *	2 ug/l	20 ug/l
Benzo(b)fluoranthene	0.2 ug/l	0.031 ug/l *	0.031 ug/l *	2 ug/l	20 ug/l
Benzo(g,h,i)perylene	210 ug/l	0.031 ug/l *	0.031 ug/l *	2100 ug/l	2100 ug/l
Benzo(k)fluoranthene	0.5 ug/l	0.031 ug/l *	0.031 ug/l *	5 ug/l	50 ug/l
Chrysene	5 ug/l	0.031 ug/l *	0.031 ug/l *	50 ug/l	500 ug/l
Dibenzo(a,h)anthracene	0.2 ug/l	0.031 ug/l *	0.031 ug/l *	2 ug/l	20 ug/l
Fluoranthene	280 ug/l	0.3 ug/l	0.3 ug/l	2800 ug/l	2800 ug/l
Fluorene	280 ug/l	30 ug/l	30 ug/l	2800 ug/l	2800 ug/l
Indeno(1,2,3-c,d)pyrene	0.2 ug/l	0.031 ug/l *	0.031 ug/l *	2 ug/l	20 ug/l
Naphthalene	20 ug/l	26 ug/l	26 ug/l	200 ug/l	200 ug/l
Phenanthrene	210 ug/l	0.031 ug/l *	0.031 ug/l *	2100 ug/l	2100 ug/l
Pyrene	210 ug/l	0.3 ug/l	0.3 ug/l	2100 ug/l	2100 ug/l
1,2-dichloroethane	3 ug/l **	127 ug/l	127 ug/l	30 ug/l	300 ug/l
1,2-dibromoethane (EDB)	0.02 ug/l **	13 ug/l	13 ug/l	0.2 ug/l	2 ug/l
Toxicity bioassay tests	Not applicable	Pass test *	Pass test *	Not applicable	Not applicable
Arsenic	50 ug/l **	50 ug/l *	50 ug/l *	500 ug/l	500 ug/l
Barium	2000 ug/l **	####	####	20000 ug/l	20000 ug/l
Cadmium	5 ug/l **	##	0.3 ug/l *	50 ug/l	50 ug/l
Chromium	100 ug/l **	##	515 ug/l	1000 ug/l	1000 ug/l
Lead	15 ug/l **	##	5.6 ug/l *	150 ug/l	150 ug/l
Mercury	2 ug/l **	0.012 ug/l *	0.025 ug/l *	20 ug/l	20 ug/l
Selenium	50 ug/l **	5 ug/l *	71 ug/l *	500 ug/l	500 ug/l
Silver	100 ug/l **	0.07 ug/l *	0.35 ug/l	1000 ug/l	1000 ug/l
TRPHs	5 mg/l	5 mg/l	5 mg/l	50 mg/l	50 mg/l
Chloride	250 mg/l **#	####	####	2500 mg/l #	2500 mg/l #
Sulfate	250 mg/l **#	####	####	2500 mg/l #	2500 mg/l #
Total Dissolved Solids (TDS)	500 mg/l **#	####	####	5000 mg/l #	5000 mg/l #

¹ If the MDL given the condition of the sample, using the most sensitive and currently available technology, is higher than a specified criterion, the PQL shall be used.

In lieu of Table VI use the lower of Table V and Table VII Freshwater Surface Water Criteria.

* As provided in Chapter 62-302, F.A.C.

** As provided in Chapters 62-520 or 62-550, F.A.C.

Only applicable to sites where the contamination is derived from petroleum as defined in Section 376.301, F.S.

Hardness-dependent as provided in Chapter 62-302, F.A.C.

Not greater than 10% above background concentration.

Not greater than 10% above background concentration and only applicable to sites where the contamination is derived from petroleum as defined in Section 376.301, F.S.