

# Hopping Green & Sams

Attorneys and Counselors

December 18, 2015

## **By Electronic Mail**

Dr. Brian Dougherty, Administrator  
Division of Waste Management  
Florida Department of Environmental Protection  
Twin Towers Office Building, MS 4500  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Re: Chapter 62-780, F.A.C. – Draft Rule Amendments (November 4, 2015) and  
Contaminated Media Forum (November 3, 2015)

Dear Brian:

On behalf of the Florida Electric Power Coordinating Group, Inc. Environmental Committee (FCG) and Florida Power & Light Company (FPL), I am submitting this letter for the purpose of providing written comments in regard to draft rule amendments to Chapter 62-780, Florida Administrative Code (F.A.C.), and follow-up written comments regarding activities of the Contaminated Media Forum (CMF). The FCG is a not-for-profit association of twenty-eight (28) investor-owned, municipally-owned, and cooperatively-owned electric utilities engaged in the business of providing the majority of electric power to the public in the State of Florida. FPL is the largest electric utility in Florida and one of the largest rate-regulated utilities in the United States. FPL generates power from 16 power plants and delivers it by way of 69,350 miles of power lines to approximately 4.5 million customers in about half the State of Florida.

FCG members and FPL are responsible for conducting site rehabilitation activities at certain sites in Florida which are governed by the provisions of Chapter 62-780, F.A.C. Indeed, over the years, the FCG and FPL have been extensively involved in the drafting and passage of most of the Florida Statutes authorizing the Florida Department of Environmental Protection's (FDEP or Department) contamination cleanup programs, as well as the subsequent development of implementing rules, including Section 376.30701, Florida Statutes and Chapter 62-780, F.A.C. The FCG and FPL continue to actively work with the Department in addressing implementation and other policy development issues related to the agency's contamination cleanup programs.

The FCG's and FPL's joint written comments are provided below and, where appropriate, reference line numbers in FDEP's November 4, 2015 working draft that was the subject of discussion at the rule workshop. These comments have been developed with technical and toxicological input from Dr. Christopher Teaf, Doug Covert and their colleagues at Hazardous Substance & Waste Management Research, Inc. (HSWMR). The FCG and FPL hope that, to the extent FDEP agrees to incorporate these comments, appropriate changes are included in the next draft version of Chapter 62-780, F.A.C. that the agency develops.

### **General Comments - Chapter 62-780, F.A.C.**

The FCG and FPL note that FDEP proposes to bifurcate the current emergency response and interim source removal rule section (Rule 62-780.500) into two separate rule sections addressing emergency response and interim source removal activities, respectively. While conceptually the FCG and FPL do not oppose this separation, the FCG and FPL want to confirm that the existing Mineral Oil Dielectric Fluid (MODEF) and Heavy Fuel Oil (HFO) response action protocols will not be eliminated or otherwise modified as a result of FDEP's bifurcation of this rule section. Both protocols have been in place for over 10 years and have worked well in addressing releases of mineral oil and heavy fuel oil associated with electric utility operations in a manner that is protective of human health and the environment while allowing for the efficient delivery of electric utility services to Florida residents. The FCG and FPL note, in particular, that the two new draft rule sections have certain sampling and reporting requirements that are inconsistent with similar requirements in the MODEF and HFO protocols. Based on discussion during the course of the June 30, 2015, and November 4, 2015, rule workshops, Department representatives confirmed that the agency's rulemaking and the proposed new rule sections are not intended to eliminate or otherwise modify these protocols. The FCG and FPL wish to discuss further with FDEP staff some minor administrative revisions to the MODEF and HFO protocols that now will be required to cross-reference the applicable rule sections (62-780.500 and 62-780.525, F.A.C.) proposed to be created by FDEP in Chapter 62-780, F.A.C.

### **Specific Comments - Chapter 62-780, F.A.C.**

1. **Rule 62-780.200(13) - Lines 178-181.** The FCG and FPL suggest that the definition of "emergency response action" be amended (FCG/FPL revisions highlighted in yellow) to read:

(13) "Emergency response action" means ~~an interim source removal activities initiated~~ ~~conducted~~ pursuant to Rule 62-780.500, F.A.C., ~~initiated prior to contact with the Department and~~ within 24 hours of discovery of an unexpected situation or sudden occurrence of a serious and urgent nature that demands immediate action to alleviate a threat to human health, public safety, or the environment.

This proposed change clarifies Department intent.

2. **Rule 62-780.200(35) - Lines 257-269.** As raised during the rule workshop, the FCG and FPL support further agency efforts to update FDEP guidance on the use of the concept of "poor quality" groundwater that already exists at a contaminated site (unrelated to the prohibited discharge) in the development of appropriate groundwater cleanup target levels.
3. **Rule 62-780.220(7) - Line 443.** Consistent with a comment raised during the workshop, the FCG and FPL propose that the phrase "and, if warranted, electronic mail address" be inserted after the word "address" to reflect the predominant use of email.
4. **Rule 62-780.500(1) - Lines 514-516.** Existing rule language addresses "unexpected situation or sudden occurrence of a serious and urgent nature that demands immediate action to alleviate a threat to human health, public safety, or the environment ...". The criteria upon which such a decision should be based (e.g., volume, mass, concentration, chemical characteristics), and identification of the entity that should make that decision are not clear in existing rule language. This comment was discussed at some length during the recent rule workshop and the FCG and FPL continue to recommend to FDEP that these points be clarified in this rule subsection.
5. **Rule 62-780.500(3)(a)5. - Lines 630-639.** On lines 632-633, FDEP has proposed draft rule language in the context of emergency response action source removal of a non-petroleum product spill that provides that: "[E]xcavation of a source to a depth of 1 foot below visually stained soil or sediment is permissible above the groundwater table and may be conducted without confirmatory soil or sediment sampling and analysis." FDEP revised this part of the rule in response to prior FCG and FPL comments. As well, this concept should continue to also be implemented for interim source removal activities to be addressed in proposed new Rule 62-780.525 as FDEP has suggested on lines 925-926. In response to comments at the recent rule workshop, while it is true that not all non-petroleum

materials may leave visual indicators, there are a number of non-petroleum materials that do and FDEP's draft rule language should be retained for those instances. To address the concerns raised at the workshop, the FCG and FPL suggest that the phrase "if present" be inserted after the phrase "visually stained soil or sediment" to provide greater clarity.

6. **Rule 62-780.500(4)(a) - Line 731.** The FCG and FPL suggest that the phrase "may, and for emergency response actions" be deleted to be consistent with the agency's proposed bifurcation of emergency response actions and interim source removal activities into separate rule sections.
7. **Rule 62-780.525(3)(a) - Lines 874-878.** For the reason provided in the preceding comment, the FCG and FPL believe that the phrase ", if necessary to alleviate a threat to human health, public safety, or the environment" should be deleted. This consideration does not always apply to interim source removal activities.
8. **Rule 62-670.550(2) - Lines 1058-1061.** The FCG and FPL disagree with the Office of Emergency Response proposed language on Line 1058. Not all non-petroleum de minimis discharges are addressed through emergency response actions. Thus, the FCG and FPL propose that this subsection be revised to read:

(2) Nonpetroleum de minimis discharges shall be addressed in an emergency response removal **or interim source removal** ~~interim source removal~~ and shall be subject to the applicable requirements of Rules **62-780.500** or **62-780.550**, F.A.C., except for the notification and reporting requirements of **those sections** and the notification requirements of subsection 62-780.220 (1), F.A.C. De minimis discharges of drycleaning solvents shall not be exempt from the reporting requirements of subsection 62-780.210(2), F.A.C.

A similar change should also be made to Rule 62-780.560(2), F.A.C. on lines 1078-1080. Finally, consistent with these suggested revisions, the phrase "Emergency Source Removal Report or "should be inserted before the phrase "Interim Source Removal Report" on line 1080.

9. **Rule 62-780.650(3)(b) - Lines 1617-1620.** The proposed draft language suggests that the 90<sup>th</sup> percentile of the final exposure or risk distribution specifically should apply to a perceived sensitive population. The Probabilistic Risk Assessment (PRA) process is designed and operated to take into account age and population-specific characteristics that themselves serve to represent the

sensitive subgroups of interest (e.g., children and pregnant women). When a PRA is conducted wherein the input distributions represent exposure variability among a representative population of receptors, the 90<sup>th</sup> percentile of risk corresponds to the 90<sup>th</sup> percentile of the dose (mass of contaminant absorbed relative to body weight). Thus, the 90<sup>th</sup> percentile of risk inherently represents the subgroup of the population that has high contaminant uptake rates and low body weights. It is therefore appropriate to say that when a concentration generates  $1.0 \times 10^{-6}$  lifetime incremental cancer risk (LICR) at the 90<sup>th</sup> percentile of the distribution of all receptors, sensitive subgroups (those with high doses) are protected. Artificially imposing additional constraints on the process (e.g., forcing all exposure intervals to begin in childhood, or assuming that all receptors are pregnant females) distorts the intent and application of the PRA process. The proposed draft language inserted on lines 1617-1620 should be removed.

10. **Rule 62-780.680(2) - Lines 1799-1804.** Current rule language requires that institutional and engineering controls are to be agreed to by the current real property owners of the source property that is subject to the institutional or engineering control. As raised during the workshop by one commenter, such a requirement does not appear in the authorizing statute at Section 376.30701, Florida Statutes. Accordingly, the Department should revise this language to reflect its current statutory authority and to recognize that alternative institutional controls (e.g., governmental controls) may not require or necessitate property owner approval. This comment also applies to Rule 62-780.680(3), F.A.C. (RMO III) on lines 1920-1922.
11. **Rule 62-780.680(2)(a) - Lines 1805 - 1809.** Consistent with previous FCG and FPL comments, the phrase "evaluation of" should be inserted on line 1805 after the word "for." Additionally, the FCG and FPL support comments made at the workshop that free product removal criteria should include considerations of cost-efficacy. Accordingly, the FCG and FPL suggest that the term "cost-effective" be inserted on line 1808 after the word "feasible." That same change should be made to Rule 62-780.680(3)(a)2., on line 1937.
12. **Rule 62-780.680(3)(a)3. - Lines 1938-1939.** The FCG and FPL maintain that the free product considerations under RMO II and III should be the same. As a result, the FCG and FPL propose that this subparagraph be revised to delete the phrase "and all affected property owners agree to allow the free product to remain" beginning on line 1938 after the word "environment."

13. **Rule 62-780.680(3)(b)1. - Lines 1942-1948.** The Department's draft language addressing the 95% UCL for soil sampling data to include ISM should also be inserted at the corresponding place in Risk Management Option Level III.
14. **Rule 62-780.680(7)(f) - Lines 2026-2043.** On lines 2040-2041, strike "rule or ordinance" and insert "legal authority." In support of remarks made by one commenter during the rule workshop, the FCG and FPL believe that the agency should make it clear that a variety of alternative ICs may be utilized in obtaining a conditional site closure. The reference to only "the rule or ordinance" upon which the institutional control is based may be too limited as alternative ICs may be founded on legal authorities other than rules or ordinances.

#### **Comments - Chapter 62-777, F.A.C./Contaminated Media Forum (CMF)**

1. **ADAFs for GCTLs and SCTLs.** The FCG and FPL support the general consensus reached at the November 3, 2015, CMF meeting that use of age-dependent adjustment factors (ADAFs) for Groundwater Cleanup Target Levels (GCTLs) and Soil Cleanup Target Levels (SCTLs) remains an emerging scientific issue. As such, the FCG and FPL do not presently support the proposed use of ADAFs in revisions to cleanup target levels in Chapter 62-777, F.A.C. The FCG and FPL reserve final comment until such time that Dr. Keith Tolson's subgroup further considers this issue and reports back to the CMF early next year with conclusions and recommendations regarding the use of ADAFs.
2. **Modifications to GCTL equations.** The FCG and FPL do not support adding dermal and inhalation routes of exposure to the GCTL equations. Existing primary and secondary standards do not include those routes, and no standardized, widely accepted method for including those routes currently exists. Further, it is unclear what, if any, impact changing the equations for Chapter 62-777, F.A.C., GCTLs will have on other FDEP rules and programs, or other State agencies that develop or evaluate drinking water guidelines. For similar reasons, the FCG and FPL oppose changing the existing GCTL equations from being based on adult exposure to having a basis on child exposures for non-carcinogens and aggregate exposures for carcinogens.
3. **Relative Source Contribution (RSC) in GCTLs.** The FCG and FPL concur in the CMF general consensus that the use of a default RSC of 20% in calculation of default GCTLs should be discontinued for non-carcinogenic substances that do not have primary or secondary standards. The 20% default RSC is arbitrary and

does not have widespread support from other states' environmental agencies (i.e., nearly three-quarters (73%) of states queried by UF/FDEP do not use a RSC in their calculations). The FCG and FPL would conditionally support the use of chemical-specific RSC values, to the extent that those values are peer reviewed and developed by "Tier 1" level entities (e.g., U.S. Environmental Protection Agency (EPA)).

4. **Hierarchy of Toxicological Guidance Values.** As discussed during the November 3, 2015, CMF meeting, multiple apparent misapplications of the proposed Chapter 62-780, F.A.C., hierarchy resulted in preliminary proposed SCTLs that are orders of magnitude different (mostly more restrictive) than existing SCTLs. The most significant changes occur when Tier 2 (e.g., HEAST, HHBP) or Tier 3 (e.g., ITER, CalEPA) cancer-based values are chosen, even though Tier 1 (i.e., IRIS, PPRTV) sources do not identify cancer-based guidelines and Tier 1 non-cancer guidelines are available. The following table presents a few examples that have been identified for direct exposure residential SCTLs.

Substance	2005 SCTL (mg/kg)	2015 SCTL (mg/kg)	Primary reason for change
MTBE	4,400	87	'05 based on IRIS RfC (still exists); '15 based on CalEPA oral CSF
Acenaphthene	2,400	1.4	'05 based on IRIS RfD (still exists); '15 based on ITER CSF
Beryllium	120	0.2	'05 based on IRIS RfD (still exists); '15 based on CalEPA oral CSF
Ethylbenzene	1,500	11	'05 based on IRIS RfD (still exists); '15 based on CalEPA oral CSF
Nickel	340	1.7	'05 based on IRIS RfD (still exists); '15 based on CalEPA oral CSF
Pyrene	2,400	1.9	'05 based on IRIS RfD (still exists); '15 based on ITER oral CSF
Permethrin	4,200	110	'05 based on IRIS RfD (still exists); '15 based on HHBP oral CSF

Note that in the specific cases of beryllium and nickel, the SCTL is now based on potential oral carcinogenicity. Both substances are established inhalation carcinogens, but the FCG and FPL maintain that it is toxicologically inappropriate to use route-to-route extrapolation under these circumstances. During the November 2015 CMF meeting, FDEP/UF committed to reevaluating their application of the hierarchy prior to the next CMF meeting in early 2016.

The FCG and FPL propose that if a Tier 1 value is identified for systemic effects, and no Tier 1 value is identified for potential carcinogenic effects, the hierarchy should not be further evaluated. If emerging science suggests that a non-carcinogenic substance should henceforth be evaluated as a carcinogen, it is scientifically prudent to allow the well-established toxicological guidance process to run its course and delay such a significant change to SCTLs until such time that Tier 1 values are established. Given the carcinogenicity and route-specific uncertainties associated with application of the toxicity value hierarchy, it may be advisable to consider development of a guidance document or technical memorandum explaining the selection rationale, particularly in cases where Tier 1 values are discounted.

5. **Physical/chemical properties (leachability).** The issue of changes to physical/chemical properties primarily affects the leachability-based SCTLs. During the November 2015 CMF meeting, FDEP/UF explained that the changes arise from using a different chemical property estimation database than was previously used (EPI rather than SCDM). The property that expresses the most significant influence is the organic carbon partition coefficient ( $K_{oc}$ ). For certain substances (e.g., aldrin, DDE, heptachlor, permethrin, bromoxynil), the proposed  $K_{oc}$  value is orders of magnitude lower, resulting in proposed leachability SCTLs that are as much as 30-500 fold lower than the existing leachability SCTLs. The FCG and FPL propose that measured, rather than estimated,  $K_{oc}$  values be identified when significant changes (e.g., greater than 10-fold) are noted between existing and proposed values.
6. **Acute toxicity-based SCTLs.** The FCG and FPL suggest that FDEP discontinue the development of default SCTLs for a limited number of substances based on consideration of potential acute toxicity. During the November 2015 CMF meeting, FDEP/UF presented results of a survey of other states' environmental agencies in which only 3 of 26 (~11%) responding agencies reported that they develop soil values based on acute toxicity considerations. An additional four states employ site-specific evaluations to determine whether acute exposure values are appropriate. The FCG and FPL would consider it appropriate to evaluate acute exposure considerations on a case-by-case basis for instances where young children who may exhibit pica behavior are present. HSWMR will provide a more thorough analysis of the acute toxicity-based exposure SCTLs issue during the next CMF meeting in early 2016.
7. **Outdoor worker SCTLs.** The FCG and FPL recommend that FDEP not pursue development of default direct-exposure SCTLs based on an outdoor worker exposure or any other alternative exposure scenario beyond the existing



residential and industrial/commercial exposure scenarios. The opportunity already exists for potentially responsible parties to develop site-specific alternative SCTLs. Additional default SCTLs will not significantly enhance the existing rule chapter.

### **Comments - Institutional Controls Procedures Guidance**

I am forwarding again as an attachment to this letter comments previously submitted by the FCG and FPL regarding the September 2015 draft Institutional Controls Procedures Guidance (ICPG) document. The FCG and FPL commend the Department on its continued implementation of additional flexibilities in the agency's contamination cleanup programs evidenced by the proposed ICPG revisions which include more detailed discussion on the use of alternative institutional controls (e.g., governmental controls). While somewhat unrelated to the ICPG itself, the FCG and FPL believe that the scope of the Florida Department of Transportation (FDOT) Memorandum of Agreement with FDEP regarding alternative institutional controls for petroleum contamination in FDOT rights of way (ROWs) should be broadened to include non-petroleum contaminated sites where only petroleum-based constituents of concern remain in such ROWs.

\* \* \*

The FCG and FPL very much appreciate the consideration that FDEP gives their comments and comments of the regulated community. After you have reviewed these comments, should you have any questions, please do not hesitate to contact me at (850) 425-2254.

Dr. Brian Dougherty  
December 18, 2015  
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Sincerely,

Hopping Green & Sams



By: \_\_\_\_\_  
Michael P. Petrovich

Attorneys for the Florida Electric Power  
Coordinating Group, Inc., Environmental  
Committee

and

Florida Power & Light Company

cc: Rebecca Robinette, Esq., FDEP  
FCG Solid Waste Subcommittee  
Mark Jones, Florida Power & Light Co.  
Pat Maher, Florida Power & Light Co.  
Dr. Christopher Teaf, HSWMR



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Via E-Mail

Re: Florida Brownfields Association comments on FDEP 11-04-15 Draft Revisions to Chapter 62-780, FAC

Dear Brian:

On behalf of the Florida Brownfield Association, we are submitting the following recommendations and attached proposed draft revisions to Chapter 62-780, FAC.

**1) Issue: Adjustment of Exposure Assumptions**

FBA Recommendation: Implement exposure assumptions for body weight, exposure duration, skin surface area, dermal adherence, etc., in accordance with EPA guidance (OSWER Directive 2014). Revise the age-specific body weight and surface area tables in 62-777 based on new NHANES studies for use in aggregate resident calculations.

Rationale: These Exposure assumption changes reflect the most up-to-date science. Also adopt updated physical/chemical parameters and toxicity factors.

**2) Issue: Add an outdoor worker scenario**

FBA Recommendation: Keep current scenario as it is; do not add an "outdoor worker scenario."

Rationale: Use one worker scenario based on the current worker soil ingestion rate. None of the adult soil ingestion studies are very robust. The recommended values tend to be biased high. Many outdoor workers may have soil ingestion lower than the indoor worker default numbers. Overall, not reflective of actual exposure conditions.

**3) Issue: Use of Age Dependent Adjustment Factors (ADAFs) in Groundwater Equations and Soil Equations (mutagenic carcinogens)**

FBA Recommendation: Do not adopt ADAF methodology.

Rationale: The methodology is not well founded scientifically and implementation is problematic with the age-weighting that FDEP currently uses.

**4) Issue: Soil Equations - Use of Route-to-Route Extrapolation**

FBA Recommendation: Do not extrapolate route-to-route; adopt EPA's methodology. If there is not science to support a toxicity factor for a specific route, that route should not be considered.

**5) Issue: Hierarchy of Tiers for sources to use when determining Toxicity Factors**

FBA Recommendation: Elevate an FDEP-approved toxicity factor to a Tier 2 level along with the PPRTVs (FDEP should have the flexibility to approve a PRP proposed Toxicity Factor). Keep IRIS as the sole Tier 1 source. Avoid filling missing toxicity values from Tier 3. If there is not an IRIS or PPRTV toxicity factor, one should not be created. Drop the Foreign toxicity factors from the list. The science should dictate the use/implementation of Toxicity Factors.

**6) Issue: How to "consider the additive effects of contaminants" as required by 376.30701(2)(e) F.S.**

FBA Recommendation: FDEP should interpret the requirement to 'consider the additive effects of contaminants' to apply to chemicals with a known similar mechanism of action using dose additivity (only). The FBA has proposed specific revisions to the rule language to eliminate the use of apportionment (attached).

**7) Issue: Changes to Rule to implement statutory requirements for notice 376.30701, F.S., closure using alternative CTLs, and based on non-recorded Institutional Controls**

Recommendation: The FBA has recommended specific revisions to the rule language to address the above issues. Changes are reflected as noted in #6, above.

A copy of the 11-04-15 FDEP draft rule is attached in "word" format with the FBA's changes relating to issues 6 and 7 above reflected in "track changes". FBA's revisions are annotated by marginal comments highlighted in green for ease of identification and review. In addition, a PDF file is attached that includes only the pages including affected by FBA's proposed revisions.

Mr. Brian Dougherty  
December 15, 2015  
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The FBA has concerns regarding several other changes to the rule that the FDEP is considering, but will reserve comment until specific draft implementing text is available for review. Those issues include revisions to the rule addressing acute toxicity SCTLs and to address exclusion of relative source contribution for non-carcinogens.

Please do not hesitate to contact any of us if you have questions regarding our submittal.

Yours sincerely,



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Laurel Lockett, Carlton Fields, FBA President  
813-229-4139



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Tom Lewis, Cardo, Technical Committee Co-Chair  
850-385-8232



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Nicole Penichet, Geosyntec, Technical Committee Co-Chair  
813-558-0995

Enclosures

cc: FBA Board & Technical Committee

**Workshop Draft for November 4, 2015**

*Note: This draft is a markup of the 06-30-15 workshop draft. Changes made in this draft are highlighted in yellow. All comments and suggested changes received have been placed in their respective locations throughout the document. All comments have been included as submitted.*

**Comment [A1]:** The FBA has provided suggested revisions to the rule in a number of areas. Comments explaining the FBA's proposed revision are highlighted in green.

**CHAPTER 62-780  
CONTAMINATED SITE CLEANUP CRITERIA**

4	62-780.100	Referenced Guidelines and Information Sources
5	62-780.110	Purpose, Intent, and General Principles (Repealed)
6	62-780.150	Applicability
7	62-780.200	Acronyms and Definitions
8	62-780.210	Contamination Reporting
9	62-780.220	Notices
10	62-780.300	Quality Assurance Requirements
11	62-780.400	Professional Certifications
12	62-780.450	Combined Document
13	62-780.500	Emergency Response Action or Interim Source Removal
14	62-780.525	Interim Source Removal
15	62-780.550	Nonpetroleum De Minimis Discharges
16	62-780.560	Petroleum or Petroleum Product De Minimis Discharges
17	62-780.600	Site Assessment
18	62-780.610	Fate and Transport Model and Statistical Method Requirements
19	62-780.650	Risk Assessment
20	62-780.680	No Further Action and No Further Action with Controls
21	62-780.690	Natural Attenuation Monitoring
22	62-780.700	Active Remediation
23	62-780.750	Post Active Remediation Monitoring
24	62-780.790	Time Schedules
25	62-780.900	Forms

**62-780.100 Referenced Guidelines and Information Sources.**

Specific references to the guidelines and information sources listed below are made within this chapter. The guidelines and information sources are not standards as defined in Section 403.803, F.S. Use of these guidelines and information sources is not mandatory and not enforceable; the guidelines and information sources are included for informational purposes only.

(1) Approach to the Assessment of Sediment Quality in Florida Coastal Water, Volumes 1-4, dated November 1994.

(2) Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, F.A.C., Final Report, dated February 2005.

(3) Chapter 62-780, F.A.C., Contaminated Site Risk-Based Corrective Action (RBCA) Flow Process charts, dated March 21, 2013.

(4) American Society for Testing and Materials (ASTM) RBCA Fate and Transport Models: Compendium and Selection Guidance, dated 1999.

(5) Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits, dated October 12, 2004.

(6) Development and Evaluation of Numerical Sediment Quality Assessment Guidelines for Florida Inland Waters, dated January 2003.

(7) Institutional Controls Procedures Guidance, Division of Waste Management, Florida Department of Environmental Protection, dated November 2013.

(8) Guidance for Evaluating the Technical Impracticability of Ground-Water Restoration, Environmental Protection Agency, draft Interim Guidance, dated September 1993. (Note: USEPA terminology used in this publication may be inconsistent with Department language used in this rule chapter.)

(9) Toxicity Test Methods, Florida Department of Environmental Protection Interoffice Memorandum, dated June 24,

**Comment [A2]:** Ed. note: will need to update to latest version.

93 with which the Department has concurred, or other cleanup agreement document (CAD) with the Department, and the PRSR  
94 continues the activities necessary to achieve those CTLs in accordance with the approved technical document, permit,  
95 Superfund Record of Decision, or other CAD until those CTLs are achieved; or

96 (b) The site has received a “No Further Action” determination or a Site Rehabilitation Completion Order from the  
97 Department prior to April 17, 2005. However, the PRSR may elect to have the criteria of this chapter, including CTLs  
98 established pursuant thereto, apply in lieu of those in an approved technical document, current permit, or other CAD.

99 (6) This chapter shall be applied in conjunction with Chapter 62-777, F.A.C., to determine the appropriate CTLs for a  
100 contaminated site. Chapter 62-777, F.A.C., provides default groundwater, surface water, and soil CTLs, as well as natural  
101 attenuation default concentrations for groundwater, a listing of soil properties and test methods, a listing of site-specific  
102 conditions and geochemical parameters, and default parameters and equations that may be used to establish CTLs for  
103 contaminants not listed in Chapter 62-777, F.A.C., or alternative groundwater and soil CTLs for listed contaminants.

104 (7) CTLs for each contaminant found in groundwater, surface water, or soil, as specified in Chapter 62-777, F.A.C.,  
105 Tables I and II, or derived pursuant to Chapter 62-777, F.A.C., or alternative CTLs that may be established pursuant to Rule  
106 62-780.650 or 62-780.680, F.A.C., are applicable in implementing the provisions of this chapter and are enforceable by the  
107 Department pursuant to this chapter at contaminated sites at which legal responsibility for site rehabilitation exists..

108 ~~(8) For contaminants found at the site about which information regarding the actual circumstances of exposure has been  
109 provided to the PRSR, the CTLs for the affected medium or media, except where a state water quality standard is applicable,  
110 shall be adjusted (if appropriate) to take into account the site specific exposure conditions including multiple pathways of  
111 exposure that affect the same individual or subpopulation, and site specific CTLs shall be calculated taking into account,  
112 through apportionment, potential additive effects of contaminants.~~

113 (98) If a Consent Order or permit that requires assessment and rehabilitation of a site has been entered into with the  
114 Department prior April 17, 2005, compliance with the terms of the Consent Order or permit shall constitute compliance with  
115 the provisions of this chapter.

116 (109) This chapter does not apply to the rehabilitation of sites contaminated with radiological substances to the extent  
117 that such rehabilitation is governed by Chapter 404, F.S., or the Federal Atomic Energy Act of 1954, Chapter 1073, Statute  
118 923, as amended.

119 (110) Receipt of approval pursuant to this chapter does not relieve the PRSR from the obligation to comply with other  
120 Department rules (for example, Chapters 62-701, 62-713, and 62-730, F.A.C.) regarding disposal, relocation, or treatment of  
121 contaminated media. The PRSR is advised that other federal, state, or local laws and regulations may apply to these activities.

122 *Rulemaking Authority 376.303, 376.3071, 376.30701, 376.3078(4), 376.81 FS. Law Implemented 376.3071, 376.30701, 376.3078(4),*  
123 *376.81 FS. History—New 4-17-05, Amended 6-12-13.*

124 *Editorial Note: Portions of this rule were copied from 62-770.160, Formerly 17-70.004 and Formerly 17-770.160; 62-782.150; and 62-*  
125 *785.150.*

## 126 **62-780.200 Acronyms and Definitions.**

127 All words and phrases defined in Sections 376.301 and 376.79, F.S., shall have the same meaning when used in this chapter  
128 unless specifically stated otherwise in this chapter. See Sections 376.301 and 376.79, F.S., for definitions of the following  
129 terms: “Additive effects,” “Antagonistic effects,” “Brownfield area,” “Brownfield site,” “Cleanup target level,”  
130 “Contaminant,” “Contaminated site,” “Discharge,” “Drycleaning facility,” “Drycleaning solvents,” “Hazardous substances,”  
131 “Institutional control,” “Natural attenuation,” “Person responsible for brownfield site rehabilitation,” “Petroleum,”  
132 “Petroleum product,” “Pollutants,” “Risk reduction,” “Site rehabilitation,” “Synergistic effects,” “Temporary point of  
133 compliance,” and “Wholesale supply facility.” The following words and phrases used in this chapter shall, unless the context  
134 clearly indicates otherwise, have the following meanings:

135 (1) “Action level” means a specified concentration of a contaminant that, if exceeded during natural attenuation with  
136 monitoring or post active remediation monitoring, may require additional site assessment or active remediation. Action levels  
137 are established during the approval process for Natural Attenuation Monitoring Plans pursuant to Rule 62-780.690, F.A.C.,  
138 and Post Active Remediation Monitoring Plans pursuant to Rule 62-780.750, F.A.C. “Action levels” are not equivalent to  
139 “cleanup target levels”.

140 (2) ~~“Additive effects” shall be calculated based on the cumulative effect of chemicals based on dose additivity. The~~

Comment [A3]: FBA RECOMMENDATION:  
remove subsection (8)

Explanation: Subsection (8) introduced  
apportionment. The FBA recommends that  
Department reconsider its application of  
apportionment to only include similarly situated  
contaminants as part of “dose additivity.”

The statement here says apportionment should  
be used when calculating CTLs; however, the  
word apportionment is not in the statute and  
FBA recommends that additional clarification on  
the meaning of additive effects be added below  
and additional direction on how to address the  
statutory requirement for “additive effects” be  
handled in the technical guidance. (The  
Technical Report: Development of Cleanup  
Target Levels (CTLs) for Chapter 62-777,  
F.A.C., Final Report, dated February 2005 ( that  
will need to be updated to address).

Comment [A4]: Supports the inclusion of a  
regulatory definition for the Conceptual Site Model  
(CSM)

Comment [A5]: Suggest inclusion of a regulatory  
definition for the Conceptual Site Model (CSM) to  
assist a PRSR with making risk-based corrective  
action decisions based upon actual circumstances of  
exposure. The utility of the CSM can be applied to  
sections governing Site Assessment (780.600) , Risk  
Assessment (780.650), No Further Action and No  
Further Action with Controls (780.680) and Active  
Remediation (780.700).

Comment [A6]: FBA RECOMMENDATION:  
Provide definition to clarify the appropriate basis  
for considering additive effects.

The Technical Report should be revised to  
provide additional direction: restrict additive  
effects to Dose Additivity (instead of Effect  
Additivity). This should be applicable to  
compounds with a similar mechanism of action,  
for example PAHs and Dioxins (e.g.,  
benzo(a)pyrene equivalents/ TEQs)

141 chemicals encompassed and methods for assessing additive effects are provided in the Technical Report referenced in  
142 subsection 62-780.100(2), F.A.C. ~~Apportioned" means CTLs adjusted such that for non-carcinogenic contaminants with the~~  
143 ~~same target organ(s)/systems or effects, the hazard index (sum of the hazard quotients) is 1, and for carcinogens, the~~  
144 ~~cumulative lifetime excess cancer risk level is 1.0E-6, as applicable.~~

Comment [A7]: FBA RECOMMENDATION  
Remove definition of "apportioned".  
Explanation: The additive effects of chemicals  
will be addressed in the Technical Report.

145 (3) "Background concentrations" means concentrations of contaminants that are naturally occurring in the groundwater,  
146 surface water, soil, or sediment in the vicinity of the site.

147 (4) "Best achievable detection limit" means the practical quantitation limit. [Refer to the PQL guidelines referenced in  
148 subsection 62-780.100(5), F.A.C., for guidance.]

149 (5) "Brownfield Site Rehabilitation Agreement" (BSRA) means an agreement entered into between the person  
150 responsible for brownfield site rehabilitation and the Department. The BSRA shall at a minimum establish the time frames,  
151 schedules, and milestones for completion of site rehabilitation tasks and submission of technical reports, and other  
152 commitments or provisions pursuant to Section 376.80(5), F.S., and this chapter.

153 (6) "BSRA" means Brownfield Site Rehabilitation Agreement. Contamination

154 (7) "CAD" means cleanup agreement document.

155 (8) "Cleanup agreement document" (CAD) means any order or agreement issued to or entered into by the Department  
156 with a Person Responsible for Site Rehabilitation, including a voluntary cleanup agreement, permit, consent order, final  
157 order, or final judgment. For brownfield sites subject to a BSRA, CAD shall mean the BSRA. The CAD shall at a minimum  
158 establish the time frames, schedules, and milestones for completion of site rehabilitation tasks and submission of technical  
159 documents, and other commitments or provisions pursuant to this chapter.

160 (XX) "Conceptual Site Model" (CSM) means a written and/or graphic representation of the physical, chemical and  
161 biological processes that affect the transport, migration and actual or potential impacts of contamination in all affected media  
162 to human and ecological receptors. The Conceptual Site Model is used to develop and refine the extent of site assessment  
163 and support risk management decisions.

164 (9) "Contaminated" or "contamination" means the presence of free product or any contaminant in surface water,  
165 groundwater, soil, sediment, or upon the land, in concentrations that exceed the applicable CTLs specified in Chapter 62-777,  
166 F.A.C., or water quality standards in Chapter 62-302 or 62-520, F.A.C., or in concentrations that may result in contaminated  
167 sediment. This definition is solely for use within Chapter 62-780, F.A.C., and pursuant to Section 376.30701(1)(a), F.S., shall  
168 not be used to establish legal responsibility for conducting site rehabilitation.

169 (10) "Contaminated sediment" means sediment that is contaminated as determined by the concentrations of the  
170 contaminants, actual circumstances of exposure, biological diversity studies, toxicity testing, or other evidence of harmful  
171 effects, as applicable. [Refer to the sediment guidelines referenced in subsections 62-780.100(1) and (6), F.A.C., for guidance  
172 on the evaluation of contaminant concentrations, sediment quality conditions, and testing methods.]

173 (XX) "CSM" means conceptual site model.

174 (11) "CTL" means cleanup target level as defined in Section 376.301, F.S.

175 (12) "Department" means the FDEP, or a county or Department of Health local program established under a contract  
176 pursuant to Section 376.3073, F.S., to assist the FDEP in the administration of the petroleum contamination site cleanup  
177 program, or a local pollution control program that has received delegated authority from the FDEP pursuant to Sections  
178 376.80(9) and 403.182, F.S., to administer all or part of the brownfields program. For more information, visit the FDEP  
179 website.

180 (13) "Emergency response action" means an interim source removal conducted pursuant to Rule 62-780.500, F.A.C.,  
181 ~~initiated prior to contact with the Department and within 24 hours of discovery of an unexpected situation or sudden~~  
182 ~~occurrence of a serious and urgent nature that demands immediate action to alleviate a threat to human health, public safety,~~  
183 ~~or the environment.~~

Comment [A8]: Frequently emergency response  
actions are taken after the department has been  
notified and OER directs the responsible party to  
take action. 62-780.500(1) also references  
emergency response actions taken after notification  
from the Department.

184 (14) "Engineering control" means use of existing features (such as buildings) or modifications to a site to reduce or  
185 eliminate the potential for migration of, or exposure to, contaminants. Examples of modifications include physical or  
186 hydraulic control measures, capping, point-of-use treatments, or slurry walls.

187 (15) "Excessively contaminated soil" for the purposes of Section 376.3071(12)(b)376.3071(11)(b)2., F.S., that only  
188 applies to sites scored 29 or less (unless laboratory results verify that the organic vapor analysis data are not relevant), means  
189 soil saturated with petroleum or petroleum products or soil that causes a total corrected hydrocarbon measurement of 500



335 and Reauthorization Act of 1986, 42 U.S.C. s. 11001, et seq. (SARA), the Florida Hazardous Materials Emergency Response  
336 and Community Right-to-Know Act of 1988, Chapter 252, Part II, F.S., and the reporting requirements for discharges of oil  
337 to navigable waters pursuant to 40 C.F.R. Parts 110 and 112.

338 (5) For the purposes of Rule 62-780.210, F.A.C.:

339 (a) "Discharger" means the person who has dominion or control over the petroleum or petroleum products at the time of  
340 the discharge into the environment.

341 (b) "Discovery" means:

342 1. Observance or detection of free product in boreholes, wells, open drainage ditches, open excavations or trenches, or on  
343 nearby surface water, or petroleum or petroleum products in excess of 0.01 foot in thickness in sewer lines, subsurface utility  
344 conduits or vaults, unless the product has been removed and it was confirmed that a release into the environment did not  
345 occur;

346 2. Observance of visually stained soil or odor of petroleum products resulting from a discharge of used oil equal to, or  
347 exceeding, 25 gallons on a pervious surface [see subsection 62-780.560(1), F.A.C., for cleanup requirements applicable to  
348 discharges of less than 25 gallons];

349 3. Discharges of petroleum or petroleum products equal to, or exceeding, 25 gallons on a pervious surface [see  
350 subsection 62-780.560(1), F.A.C., for cleanup requirements applicable to discharges of less than 25 gallons];

351 4. Results of analytical test on a groundwater sample that exceed the CTLs referenced in Chapter 62-777, F.A.C., Table  
352 I, groundwater criteria column for the petroleum products' contaminants of concern listed in Table B of this chapter (located  
353 at the end of Rule 62-780.900, F.A.C.); or

354 5. Results of analytical test on a soil sample that exceed the lower of the direct exposure residential CTLs and  
355 leachability based on groundwater criteria CTLs specified in Chapter 62-777, F.A.C., Table II for the petroleum products'  
356 contaminants of concern listed in Table B of this chapter.

357 *Rulemaking Authority 376.303, 376.3071, 376.3078 FS. Law Implemented 376.305, 376.3071, 376.30701, 376.3078 FS. History--New 6-*  
358 *12-13.*

359 *Editorial Note: Portions of this rule were copied from 62-770.250, Formerly 17-770.250.*

360 **62-780.220 Notices.**

361 (1) Notice of Field Activities. Within the time frames specified in Table A (located at the end of Rule 62-780.900,  
362 F.A.C.) or the CAD, the PRSR, its agent, or authorized representative shall provide written notice to the Department prior to  
363 performing field activities such as interim source removal activities, installing monitoring or recovery well(s), performing  
364 sampling, installing remediation equipment, or installing an engineering control. Personnel from the Department shall be  
365 allowed the opportunity to observe these field activities and to take sub-samples. If the Department chooses to be present  
366 when field activities are being performed, the Department shall be responsible for confirming that the field activities are  
367 being performed in accordance with the schedule provided in the written notification.

368 (2) Initial Notice of Contamination Beyond Property Boundaries. Section 376.30702, F.S., provides specific notice  
369 requirements upon a PRSR's discovery from laboratory analytical results that comply with appropriate quality assurance  
370 protocols pursuant to Chapter 62-160, F.A.C., that contamination exists in any medium beyond the boundaries of the property  
371 at which site rehabilitation was initiated pursuant to this chapter. Upon such discovery, the PRSR shall notify the FDEP as  
372 soon as possible, but not later than 10 days after discovery. The notice shall be provided on Form 62-780.900(1) titled "Initial  
373 Notice of Contamination Beyond Property Boundaries" effective date 6-12-13, hereby adopted and incorporated by reference  
374 (<http://www.flrules.org/Gateway/reference.asp?No=Ref-01488>). Forms may be obtained from the Division of Waste  
375 Management website at [www.dep.state.fl.us/waste](http://www.dep.state.fl.us/waste). The PRSR shall simultaneously mail a copy of such notice to the  
376 appropriate FDEP district office, county health department, and all known lessees and tenants of the source property. Refer to  
377 Section 376.30702(2), F.S., for additional details about this requirement and the information that must be included in the  
378 notice.

379 (3) Subsequent Notice of Contamination Beyond Source Property Boundaries for Establishment of a Temporary Point of  
380 Compliance (TPOC). Pursuant to Section 376.30701(2) (b), F.S., Prior to the Department authorizing a temporary extension  
381 of the point of compliance beyond the boundary of the source property (i.e., the location from which the contamination  
382 originates) in conjunction with Natural Attenuation Monitoring pursuant to Rule 62-780.690, F.A.C., or Active Remediation

Comment [A15]: FBA RECOMMENDATION:  
Add reference to the applicable statutory  
provisions. This concept is repeated below in  
subsection (7).

383 pursuant to Rule 62-780.700, F.A.C., the PRSR shall provide “actual notice” to local governments and the owners of any  
384 property into which the point of compliance is allowed to extend and “constructive notice” to residents and business tenants  
385 of the property into which the point of compliance is allowed to extend. Persons receiving such notice shall have the  
386 opportunity to comment within 30 days after receipt of the notice. For the purposes of this Section 62-780.220, F.A.C.,  
387 “actual notice” and “constructive notice” shall mean as follows:~~the following notices:~~

388 (a) Actual notice in written form mailed by “Certified Mail, Return Receipt Requested” or other form of delivery that  
389 provides confirmation of receipt to the appropriate County Health Department and all record owners of any real property into  
390 which the point of compliance is allowed to extend (mailed to the owner’s address listed in the current county property tax  
391 office records). The notice shall include the following information:

- 392 1. The type of proposed agency action (i.e., temporary extension of the point of compliance);
- 393 2. A description of the location of the subject site and the name and address of the PRSR;
- 394 3. The location where complete copies of any relevant documents concerning the site and the proposed remedial strategy,  
395 including temporary extension of the point of compliance, are available for public inspection;
- 396 4. The name and address of a contact person at the Department who is the project manager for the site rehabilitation, to  
397 whom comments should be directed, and from whom copies of the Department’s actions regarding the site may be requested;  
398 and
- 399 5. A paragraph including the statement: “Persons receiving this notice shall have the opportunity to comment on the  
400 Department’s proposed action within 30 days of receipt of the notice.” For purposes of actual notice, the 30-day comment  
401 period shall commence on the delivery date stamped on the return receipt; and

402 (b) Constructive notice to residents [if different from the real property owner(s) notified pursuant to paragraph 62-  
403 780.220(3)(a), F.A.C.] and business tenants of any real property into which the point of compliance is allowed to extend.  
404 Such constructive notice is not required for site rehabilitation being conducted for petroleum or petroleum products  
405 contamination not associated with a brownfield site. Such constructive notice, which shall include the same information as  
406 required in the actual notice, shall be provided by complying with the following:

- 407 1. Publishing the notice one time, at least two columns wide by 10 inches long with a headline in a type no smaller than  
408 18-point font and the body of the notice in a type no smaller than 10-point font, in a standard-size newspaper of general  
409 circulation;
- 410 2. Including a statement in the notice indicating the 30-day deadline by which comments must be received. For purposes  
411 of constructive notice, the 30-day comment period shall commence on the date the notice is published in the newspaper.

412 (c) Copies of notices, both actual and constructive, must be provided to the Department as proof of compliance with this  
413 subsection. For purposes of the constructive notice, the PRSR shall provide a copy of the version printed in the newspaper or  
414 submit the actual newspaper page itself.

415 (4) Status Update 5-Year Notice. When utilizing a TPOC beyond the boundary of the source property to facilitate natural  
416 attenuation monitoring or active remediation, an additional notice concerning the status of the site rehabilitation shall be  
417 similarly provided every five years to the classes of persons who received notice pursuant to subsection 62-780.220(3),  
418 F.A.C., unless in the intervening time, such persons have been informed that the contamination no longer affects the property  
419 into which the point of compliance was allowed to extend.

420 (5) Warning Signs at Hazardous Waste Sites. At sites where a risk of exposure to the public exists due to contamination  
421 of the soil, sediment, or surface water with hazardous waste as defined in Section 403.703(13), F.S., the PRSR shall place  
422 warning signs pursuant to Section 403.7255, F.S.

423 (6) Notice Requirements for Schools. If the property at which contamination has been discovered is the site of a school  
424 as defined in Section 1003.01, F.S., regardless of whether the school property is the site at which site rehabilitation was  
425 initiated, then the school board of the district in which the property is located shall provide actual notice of the contamination  
426 to teachers and parents or guardians of students attending the school during the period of site rehabilitation. Such notice must  
427 be provided within 30 days of discovery or receipt of notification from the Department, whichever is earlier, and shall  
428 conform to the requirements in Section 376.30702(2)(a), (c), and (d), F.S. At least annually during the period of site  
429 rehabilitation, the school board of the district in which the property is located shall continue to provide such actual notice of  
430 the contamination, updated as appropriate, to teachers and parents or guardians of students attending the school. A  
431 representative copy of all notices shall be submitted to the Department at the time the notice is provided to the teachers and

Comment [A16]: FBA RECOMMENDATION:  
Consolidate all “notice requirements” related to  
closure into this section 62-780.220.  
  
The inserted text repeats the critical statutory  
requirements. In order to minimize changes to  
the rule as a whole, the FBA recommends  
leaving the “definitions” of “actual notice” and  
“constructive notice” in its existing position in  
this subsection (3).

432 parents or guardians.  
433 (7) Notice Requirements for Closure Using Institutional, Engineering Controls or Alternative CTLs. Sections  
434 376.30701(s) (c) and (d), F.S. provide specific notice requirements for conditional closure using institutional controls,  
435 engineering controls or alternative CTLs. Prior to the Department's approval of a No Further Action Proposal with  
436 institutional controls, ~~or with institutional and engineering controls or alternative CTLs, whether for a No Further Action~~  
437 ~~Proposal~~, the PRSR shall provide constructive notice of the Department's intent for such approval to  
438 the local government(s) with jurisdiction over the property(ies) subject to the institutional control, to real property owner(s)  
439 of any property subject to the institutional control, and to residents of any property subject to the institutional control. The  
440 PRSR shall provide the Department with proof of such notice that meets the requirements of subsections 62-110.106(5), (8),  
441 and (9), F.A.C., except that the notice shall be prepared and published by the PRSR within 30 days after the Department's  
442 provisional approval of the No Further Action Proposal with institutional controls. The notice shall provide the local  
443 government(s) with jurisdiction over the property(ies) subject to the institutional control, real property owner(s) of any  
444 property subject to the institutional control, and residents of any property subject to the institutional control, the opportunity  
445 to comment to the Department within 30 days after receipt of the notice of the Department's intent of approval. Where  
446 subsection 62-110.106(8), F.A.C., requires a description of the agency action proposed, the notice shall contain "to issue a  
447 Site Rehabilitation Completion Order with institutional controls for a contaminated site," ~~or "to manage potential exposure to~~  
448 ~~contaminated media while site rehabilitation is on going," as appropriate.~~ Additionally, the notice of rights language shall be  
449 replaced with "Local governments, real property owner(s) of any property subject to the institutional control, and residents of  
450 any property subject to the institutional control have 30 days from publication of this notice to provide comments to the  
451 Department." The notice ~~shall also~~ ~~shall~~ provide the appropriate mailing address to which comments should be sent.  
452 See subsection 62-780.100(7), Institutional Controls Procedures Guidance, for sample notice templates.

453 *Rulemaking Authority 376.303, 376.3071, 376.30701, 376.30702, 376.3078(4), 376.81, 403.7255 FS. Law Implemented 376.3071,*  
454 *376.30701, 376.30702, 376.3078(4), 376.81, 403.7255 FS. History--New 4-17-05, Amended 12-27-07, 6-12-13.*

455 *Editorial Note: Portions of this rule were copied from 62-770.220; 62-782.220; and 62-785.220.*

#### 456 **62-780.300 Quality Assurance Requirements.**

457 (1) Persons performing sampling and analyses pursuant to this chapter shall comply with the applicable requirements of  
458 Chapter 62-160, F.A.C., Quality Assurance.

459 (2) Unless otherwise specified in this chapter, reports that are submitted to the Department and that contain analytical  
460 data shall include the following forms and information, as applicable:

461 (a) Laboratory reports that include all applicable information specified in subsections 62-160.340(1) and (2), F.A.C. (Soil  
462 analytical results shall be reported on a dry-weight basis.);

463 (b) Copies of the completed chain of custody record form(s) [Form 62-780.900(2), effective date 6-12-13, hereby  
464 adopted and incorporated by reference (<http://www.flrules.org/Gateway/reference.asp?No=Ref-01489>), or an equivalent  
465 chain of custody form that includes all the items required by Form 62-780.900(2)]. Forms may be obtained from the Division  
466 of Waste Management website at [www.dep.state.fl.us/waste](http://www.dep.state.fl.us/waste);

467 (c) Copies of the completed groundwater sampling log(s) (Form FD 9000-24) referenced in the Groundwater Sampling  
468 SOP, FS 2200; and

469 (d) Results from screening tests or on-site analyses performed pursuant to this chapter.

470 *Rulemaking Authority 376.303, 376.3071, 376.30701, 376.3078(4), 376.81, 403.0877 FS. Law Implemented 376.3071, 376.30701,*  
471 *376.3078(4), 376.81 FS. History--New 4-17-05, Amended 6-12-13.*

472 *Editorial Note: Portions of this rule were copied from 62-770.400, Formerly 17-70.007 and Formerly 17-770.400; 62-782.300; and 62-*  
473 *785.300.*

#### 474 **62-780.400 Professional Certifications.**

475 (1) Applicable portions of technical documents submitted by the PRSR to the Department shall be signed and sealed by a  
476 professional engineer registered pursuant to Chapter 471, F.S., or a professional geologist registered pursuant to Chapter 492,  
477 F.S., certifying that the applicable portions of the technical document and associated work comply with standard professional

Comment [A17]: FBA RECOMMENDATION: Add a title to this subsection, as is provided for the other subsections in .220.

Also, the current rule does not track the statute with respect to notice process for closure using ACTLs. Adding a reference to ACTLs in subsection (7) seemed the most streamlined way to incorporate into the existing rule structure without having to repeat all this text again.

Comment [A18]: FBA RECOMMENDATION: This text appears to have been deleted by error when the concept of notice for interim RCs was deleted.

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Comment [A19]: Opposed to the requirement of constructive notice for interim measures.

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Comment [A20]: FBA RECOMMENDATION: this text needs to be deleted to complete removal of references to notice for interim measures.

Comment [A21]: Are professional certifications applicable to Emergency Response Actions and Interim Source Removals?

1552 c. Soil exposure from ingestion, dermal contact, inhalation, and ingestion by humans or animals of food crops grown in  
1553 contaminated soil; and

1554 d. Non-potable surface water exposure from ingestion, dermal contact, and inhalation of vapors and mists. Adverse  
1555 effects on freshwater or marine biota (including any bio-accumulative effects in the food chain) and on humans (for example,  
1556 through incidental ingestion and dermal contact while using the resource for recreational purposes or fish consumption) shall  
1557 be considered.

1558 2. Input assumptions different from those used to develop default CTLs may be used to propose alternative CTLs. The  
1559 appropriate equations from Chapter 62-777, F.A.C., must be used in calculating the alternative CTLs. Toxicity values for  
1560 quantifying human health risks and for developing alternative CTLs may be taken from the following information sources  
1561 listed in Rule 62-780.100, F.A.C., in order of preference.

1562 a. Tier 1, in order of preference:

1563 (I) USEPA Integrated Risk Information System (IRIS) database, or

1564 (II) Provisional Peer Reviewed Toxicity Values (PPRTV) derived by EPA's Superfund Technical Support Center for the  
1565 USEPA Superfund program.

1566 b. Tier 2. If a toxicity value is available from more than one source in this tier, the value based upon the most recent  
1567 review of the toxicological literature and accompanying dose-response analysis should be selected:

1568 (I) Agency for Toxic Substances and Disease Registry Minimal Risk Levels (MRLs),

1569 (II) Tolerable Upper Intake Levels issued by the Institute of Medicine, National Academy of Sciences,

1570 (III) USEPA Health Effects Assessment Summary Tables (HEAST),

1571 (IV) Human Health Benchmarks for Pesticides and other toxicity values in technical documents available from the  
1572 USEPA Office of Pesticide Programs, or

1573 (V) USEPA Office of Water, Drinking Water Regulations and Health Advisory Levels.

1574 c. Tier 3. If a toxicity value is available from more than one source in this tier, the value based upon the most recent  
1575 review of the toxicological literature and accompanying dose-response analysis should be selected:

1576 (I) California Environmental Protection Agency Office of Environmental Health Hazard Assessment's Chronic  
1577 Reference Exposure Levels and Cancer Potency Values,

1578 (II) World Health Organization Tolerable Daily Intake values,

1579 (III) International Toxicity Estimates for Risk,

1580 (IV) Values listed as "Withdrawn" in the IRIS database, or

1581 (V) Values from sources that are either selected by FDEP or proposed by a PRSR and accepted by FDEP that meet  
1582 statutory requirements.

1583 (c) A risk characterization that utilizes the results of the exposure assessment, the toxicity assessment, and any other  
1584 relevant public health and epidemiological assessments, to characterize cumulative risks to the affected population(s) and the  
1585 environment from contaminants found at the site. Based on the concentrations of contaminants found at the site, the  
1586 characterization shall include:

1587 1. Risks to human health and safety from exposure to the contamination;

1588 2. Risks from the contamination to non-human species and ecosystems; and

1589 3. Derivation of apportioned alternative CTLs, as applicable. [Refer to Appendix C of the technical report referenced in  
1590 subsection 62-780.100(2), F.A.C., for guidance on the derivation of alternative CTLs for TRPHs based on a sub-classification  
1591 methodology; and to Chapter 62-777, F.A.C., Table III for methods that may be used in determining soil properties for the  
1592 derivation of alternative CTLs based on site-specific soil characteristics, if soil properties are used to derive alternative  
1593 CTLs.] In developing alternative CTLs, the additive effects of chemical shall be considered [Refer to the Technical Report  
1594 referenced in subsection 62-780.100(2), F.A.C.], when scientific data are available the potential for additive, synergistic, or  
1595 antagonistic interactions among contaminants and the potential for exposure to contaminants via multiple pathways shall be  
1596 considered based on target organ(s) affected, mechanism(s) of toxicity, and empirical observations from clinical and  
1597 laboratory studies. The default assumptions shall be that non-carcinogenic chemicals affecting the same target  
1598 organ(s)/systems have additive effects and that carcinogenic risk, regardless of target organ, is additive. However, non-  
1599 default target organ(s)/system(s) or effects may be justified through a detailed toxicological analysis of the contaminants  
1600 present at a specific site.]

Comment [A43]: FBA RECOMMENDATION:  
Remove the word 'apportioned' from this  
statement.

Explanation: removal of the word apportionment  
is consistent with the previous comments.

Comment [A44]: FBA RECOMMENDATION:  
Remove language beginning with "when  
scientific data... and ending with "present at a  
specific site."

Explanation: The implementation of dealing with  
the additive effects of chemicals will be handled  
in the Technical Report.

1797 well data, groundwater flow rate and direction, or fate and transport modeling;

1798 (d) Contaminated surface water is not present, as demonstrated by the analyses of surface water samples collected from

1799 representative sampling locations (unless the Department has concurred that surface water sampling is unnecessary based on

1800 the site-specific conditions), that show that contaminant concentrations do not exceed the less stringent of:

1801 1. The applicable surface water CTLs specified in Chapter 62-777, F.A.C., Table I freshwater surface water criteria

1802 column or marine surface water criteria column;

1803 2. The background concentrations; or

1804 3. The best achievable detection limits; and

1805 (e) Contaminated sediment is not present, as demonstrated by the analyses of sediment samples collected from

1806 representative sampling locations (unless the Department has concurred that sediment sampling is unnecessary based on the

1807 site-specific conditions), or the concentrations of contaminants in sediment do not exceed the background concentrations.

1808 (2) Risk Management Options Level II - A No Further Action with institutional controls and, if appropriate, engineering

1809 controls shall apply if the controls are protective of human health, public safety, and the environment, ~~and are agreed to by~~

1810 ~~the current real property owner(s) of the source property subject to the institutional or engineering controls.~~ Fate and

1811 transport models, as defined in Rule 62-780.610, F.A.C., supported by a minimum of one year of monitoring data, may be

1812 utilized to justify the No Further Action Proposal. It shall be demonstrated to the Department that the following conditions

1813 are met for those contaminants that do not meet Risk Management Options Level I criteria of subsection 62-780.680(1),

1814 F.A.C.:

1815 (a) Criteria for free product are as follows:

1816 1. Free product is not present and no fire or explosive hazard exists as a result of a release of non-aqueous phase liquids,

1817 ~~or;~~

1818 2. Free product removal is not technologically feasible; ~~or;~~

1819 3. Free product is not migrating and does not pose a risk to human health, public safety or the environment.

1820 (b) Alternative soil CTLs have been established by the PRSR and one or more of the criteria for direct exposure and one

1821 or more of the criteria for leachability are met for soil in the unsaturated zone, as applicable:

1822 1. Criteria for direct exposure are as follows:

1823 a. Soil contaminant concentrations measured with discrete samples, or average soil contaminant concentrations

1824 calculated based on the 95% UCL approach from discrete or ISM sampling data pursuant to sub-subparagraph 62-

1825 780.680(2)(b)1.e., F.A.C., do not exceed the commercial/industrial soil CTLs specified in Chapter 62-777, F.A.C., Table II; ~~except that if the 95% UCL approach is utilized for any contaminant, then the soil contaminant concentrations shall not~~

1826 ~~exceed the apportioned soil CTLs calculated pursuant to sub-sub-subparagraph 62-780.680(2)(b)1.e.(V), F.A.C.;~~

1827

1828 b. An engineering control that prevents human exposure (for example, permanent cover material or a minimum of two

1829 feet of soil) is implemented, in which case the contaminant concentrations in the soil below the permanent cover or two or

1830 more feet below land surface may exceed the direct exposure soil CTLs. Prior to Department approval of a No Further Action

1831 with engineering controls, the PRSR shall provide certification by a registered Professional Engineer that to the best of his or

1832 her knowledge the engineering control is consistent with commonly accepted engineering practices, is appropriately designed

1833 and constructed for its intended purpose, and has been implemented;

1834 c. Soil contaminant concentrations, or average soil contaminant concentrations calculated based on the 95% UCL

1835 approach pursuant to sub-subparagraph 62-780.680(2)(b)1.e., F.A.C., do not exceed the alternative commercial/industrial soil

1836 CTLs calculated using site-specific soil properties pursuant to subparagraph 62-780.600(5)(c)2., F.A.C., and the equations

1837 and default commercial/industrial exposure assumptions specified in Chapter 62-777, F.A.C., Figures 4, 5, 6, and 7 and Table

1838 VI; ~~except that if the 95% UCL approach is utilized for any contaminant, then the soil contaminant concentrations shall not~~

1839 ~~exceed the apportioned soil CTLs calculated pursuant to sub-sub-subparagraph 62-780.680(2)(b)1.e.(V), F.A.C.;~~

1840 d. Soil concentrations of the site-specific fractions of TRPHs established pursuant to subparagraph 62-780.600(5)(c)3.,

1841 F.A.C., or average soil contaminant concentrations of the site-specific fractions of TRPHs calculated based on the 95% UCL

1842 approach pursuant to sub-subparagraph 62-780.680(2)(b)1.e., F.A.C., utilizing the soil concentrations of the site-specific

1843 fractions of TRPHs established pursuant to subparagraph 62-780.600(5)(c)3., F.A.C., do not exceed the

1844 commercial/industrial soil CTLs for the TRPH fractions provided in Appendix C of the technical report referenced in

1845 subsection 62-780.100(2), F.A.C., ~~except that if the 95% UCL approach is utilized for any contaminant, then the soil~~

Comment [A49]: FBA RECOMMENDATION: Delete this text because it is inconsistent with 376.30701. All notice requirements have been moved to 62-780.220

Comment [A50]: The Department's draft language addressing the 95% UCL for soil sampling data [under RMO I] should also be inserted at the corresponding place in Risk Management Option Level II (Rule 62-780.680(2)(b)2.a., lines 1752-1753). [ed. note: line numbers from 06-30-15 draft]

1895 applicable, fate and transport modeling results that, based upon the site-specific conditions, contaminants will not leach into  
1896 the groundwater at concentrations that exceed the appropriate groundwater CTLs established pursuant to paragraph 62-  
1897 780.680(1)(c), F.A.C., or if the groundwater is already contaminated, at concentrations that exceed the alternative  
1898 groundwater CTLs established pursuant to paragraph 62-780.680(2)(c), F.A.C., and, if applicable, the appropriate surface  
1899 water CTLs pursuant to paragraph 62-780.680(1)(d), F.A.C.; and

1900 (c) Alternative groundwater CTLs have been established by the PRSR depending on the current and projected use of  
1901 groundwater in the vicinity of the site and one or more of the following criteria are met, as applicable:

1902 1. For contamination of groundwater of low yield or poor quality, the CTLs specified in Chapter 62-777, F.A.C., Table I  
1903 groundwater of low yield/poor quality criteria column shall apply to groundwater within the property boundaries, provided  
1904 that it has been demonstrated to the Department by a minimum of one year of groundwater monitoring data that groundwater  
1905 contaminant concentrations at the property boundaries do not, and will not, exceed the appropriate groundwater CTLs  
1906 specified in subparagraph 62-780.680(1)(c)1., F.A.C., and that the plume has not affected, and will not affect, a freshwater or  
1907 marine surface water body pursuant to subparagraph 62-780.680(1)(c)2., F.A.C.;

1908 2. An engineering control that prevents migration of the plume (for example, a permanent containment such as a barrier  
1909 wall) is implemented, and it has been demonstrated to the Department by a minimum of one year of groundwater monitoring  
1910 data that groundwater contaminant concentrations at the property boundaries do not, and will not, exceed the appropriate  
1911 groundwater CTLs specified in subparagraph 62-780.680(1)(c)1., F.A.C., and that the plume has not affected, and will not  
1912 affect, a freshwater or marine surface water body pursuant to subparagraph 62-780.680(1)(c)2., F.A.C. Periodic monitoring  
1913 of the engineering control by the PRSR shall be required to verify the effectiveness of the engineering control in preventing  
1914 migration of the plume. The PRSR shall report to the Department any failures of the engineering control to prevent migration  
1915 of the plume within 30 days of discovery of a failure. Prior to Department approval of a No Further Action with engineering  
1916 controls, the PRSR shall provide certification by a registered Professional Engineer that to the best of his or her knowledge  
1917 the engineering control is consistent with commonly accepted engineering practices, is appropriately designed and  
1918 constructed for its intended purpose, and has been implemented;

1919 3. For groundwater contamination that is affecting or may potentially affect only a marine surface water body with no  
1920 other properties or freshwater surface water bodies located between the source property boundary and the marine surface  
1921 water body, the CTLs specified in Chapter 62-777, F.A.C., Table I marine surface water criteria column shall apply to  
1922 groundwater; and

1923 4. For groundwater contamination that is contained within the property boundaries and limited to the immediate vicinity  
1924 of the source area, and the area of groundwater contamination is less than 1/4 acre, where it has been demonstrated to the  
1925 Department by a minimum of one year of groundwater monitoring data and, if applicable, fate and transport modeling results,  
1926 that the groundwater contamination is not migrating away from such localized source area (the plume is stable or shrinking)  
1927 and has not affected, and will not affect, a freshwater or marine surface water body pursuant to subparagraph 62-  
1928 780.680(1)(c)2., F.A.C., alternative groundwater CTLs shall be established using the monitoring data and, if applicable,  
1929 modeling results.

1930 (3) Risk Management Options Level III – A No Further Action with institutional controls (whether such institutional  
1931 controls are recorded in the public records of the County in which the site is located, or are non-recorded institutional  
1932 controls), if needed, and, if appropriate, engineering controls shall apply if the controls are protective of human health, public  
1933 safety, and the environment, and are agreed to by the current real property owner(s) of all properties subject to the  
1934 institutional or engineering controls. ~~Alternative CTLs that are based on limitations to land use must be used in conjunction~~  
1935 ~~with institutional controls to ensure that the limited land use upon which the exposure duration and frequency assumptions~~  
1936 ~~were based remains in effect in perpetuity until the PRSR submits information to the Department that supports removal or~~  
1937 ~~modification of the recorded institutional controls (if applicable) or that reliance on a non-recorded institutional control is no~~  
1938 ~~longer required.~~ The PRSR may also use scientific studies or reports to support a No Further Action Proposal without  
1939 institutional controls under this subsection. Proposals may be based on information about a contaminant's toxicity or  
1940 carcinogenicity, provided such information is consistent with the requirements of subparagraph 62-780.650(1)(b)2., F.A.C.  
1941 Proposals for no further action without controls may also be based on information about non-site-specific exposure factors,  
1942 provided such information is consistent with the requirements of sub-subparagraph 62-780.650(1)(a)4.b., F.A.C. Fate and  
1943 transport models, as defined in Rule 62-780.610, F.A.C., supported by a minimum of one year of monitoring data, may be

Comment [A51]: FBA RECOMMENDATION: Insert this text to clarify applicability to both recorded and non-recorded Icx.

Comment [A52]: DEP: Language to be revised to reflect all types of institutional controls. Agreement not applicable for existing governmental controls (e.g., ordinances). Require agreement for owner of source property.

Comment [A53]: FBA RECOMMENDATION: Delete this text because it is inconsistent with 376.30701. All notice requirements have been moved to 62-780.220

Comment [A54]: FBA RECOMMENDATION: These changes are to accommodate closure in reliance on non-recorded ICs. The phrase "in perpetuity" generally is associated with an instrument that has been recorded in the public records, but is not consistent with reliance upon ordinances, comp plans, MOA's etc.

2042 (a) The facility identification number or other FDEP or USEPA tracking number, as applicable, that identifies the  
 2043 property where the source(s) of the contaminated site is(are) or was(were) located;  
 2044 (b) The street address of the property where the source(s) of the contaminated site is(are) or was(were) located;  
 2045 (c) The date(s) of the discharge(s), if known, that resulted in the contaminated site;  
 2046 (d) A reference to an attached map or legal description that depicts or describes the contaminated site for which the Site  
 2047 Rehabilitation Completion Order is being issued;  
 2048 (e) The most recent tables generated by the PRSR pursuant to subparagraph 62-780.600(8)(a)27., F.A.C., or subsection  
 2049 62-780.650(4), 62-780.680(4), 62-780.690(10), or 62-780.750(6), F.A.C.;

2050 (f) If applicable, a reference to all engineering and institutional controls that were implemented or relied upon at the  
 2051 contaminated site. For engineering controls, a brief description of the physical control and any maintenance or monitoring  
 2052 requirements shall be included; for recorded institutional controls, a copy of the restrictive covenant (or other recorded  
 2053 instrument) including a reference to the book and page numbers where recorded shall be attached, ; and for non-  
 2054 restrictive recorded -covenant types of institutional controls, a citation to the rule, -or ordinance or other instrument upon  
 2055 which comprising the institutional control, together with a copy of pertinent sections of the instrument is based, and, if using  
 2056 the Memorandum of Understanding between the Florida Department of Environmental Protection and the Florida  
 2057 Department of Transportation that became effective June 16, 2014, the pertinent details shall be included.

2058 (g) If applicable, a statement that the Site Rehabilitation Completion Order is conditioned upon such engineering and  
 2059 institutional controls being effective, properly maintained, and remaining in place. If applicable, the following statement shall  
 2060 be included: "If the real property owner proposes to remove the institutional controls or engineering controls, the real  
 2061 property owner shall obtain prior written approval from the Department. The removal of the controls shall be accompanied  
 2062 by the immediate resumption of site rehabilitation, or implementation of other approved controls, unless it is demonstrated to  
 2063 the Department that the criteria of subsection 62-780.680(1), F.A.C., are met."; and

2064 (h) A statement that the Site Rehabilitation Completion Order is subject to specific statutory re-opens and a listing of  
 2065 those re-opens found in Section 376.30701(4), F.S.

2066 (8) Prior to the Department's approval of a No Further Action Proposal with institutional controls or with institutional  
 2067 and engineering controls, or alternative CTLs, the PRSR shall provide constructive notice of the Department's intent for such  
 2068 approval in accordance with subsection 62-780.220(7), F.A.C.

2069 (9) The Site Rehabilitation Completion Order shall constitute final agency action regarding cleanup activities at the site.

2070 *Rulemaking Authority 376.303, 376.3071, 376.30701, 376.3078(4), 376.81, 403.061, 403.0877 FS. Law Implemented 376.3071, 376.30701,*  
 2071 *376.3078(4), 376.81, 403.0877 FS. History--New 4-17-05, Amended 6-12-13, 2-4-14.*

2072 *Editorial Note: Portions of this rule were copied from 62-770.680; 62-782.680; and 62-785.680.*

**62-780.690 Natural Attenuation Monitoring.**

2073 (1) Natural Attenuation Monitoring is an allowable strategy for site rehabilitation depending on the individual site  
 2074 characteristics, provided human health, public safety, and the environment are protected. The individual site characteristics  
 2075 may include the current and projected use of the affected groundwater and surface water in the vicinity of the site, the current  
 2076 and projected land use of the area affected by the contamination, the exposed population, the location of the plume, the  
 2077 degree and extent of contamination, the rate of migration of the plume, the apparent or potential rate of degradation of  
 2078 contaminants through natural attenuation, and the potential for further migration in relation to the site's property boundary.  
 2079 Fate and transport models as defined in Rule 62-780.610, F.A.C., may be utilized to support the appropriateness of natural  
 2080 attenuation monitoring. Natural attenuation monitoring is allowable provided the following criteria are met:

2081 (a) Free product is not present or free product removal is not technologically feasible and no fire or explosive hazard  
 2082 exists as a result of a release of non-aqueous phase liquids;

2083 (b) Contaminated soil is not present in the unsaturated zone, except that applicable leachability-based soil CTLs may be  
 2084 exceeded if it is demonstrated to the Department that the soil does not constitute a continuing source of contamination to the  
 2085 groundwater at concentrations that pose a threat to human health, public safety, and the environment, and it is demonstrated  
 2086 that the rate of natural attenuation of contaminants in the groundwater exceeds the rate at which contaminants are leaching  
 2087 from the soil. The determination shall be based upon individual site characteristics and demonstrated by USEPA Test Method  
 2088 1312 (SPLP), or USEPA Test Method 1311 (TCLP) if the contamination is derived from used oil or similar petroleum  
 2089

Comment [A61]: FBA RECOMMENDATION: This text is inserted to accommodate reliance on non-recorded ICs.

Comment [A62]: Do you want a mere citation to the ordinance or rule or a copy of the rule or ordinance in the order or attached?

Comment [A63]: FBA RECOMMENDATION: The suggested revisions should be sufficient to capture the universe of non-recorded ICs without being so specific that it becomes limiting by trying to anticipate all the various options that the Department may find are sufficiently protective.

For the same reason, we suggest that a specific reference to the FDEP/FDOT MOA is unnecessary.

Comment [A64]: FBA RECOMMENDATION: The suggested insert is needed as the current rule does not affirmatively address closure in reliance on ACTLs. Notice requirements are set forth in 62-780.220(7).

**WILLIAM D. PRESTON, P. A.**  
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December 15, 2015

VIA EMAIL: [Brian.Dougherty@dep.state.fl.us](mailto:Brian.Dougherty@dep.state.fl.us)

Brian Dougherty, Section Administrator  
Program and Technical Support Section  
Division of Waste Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road, MS 4500  
Tallahassee, FL 32399-2500

Re: Chapter 62-780, F.A.C. Rule Amendments  
Workshop Draft: November 4, 2015

Dear Mr. Dougherty:

The purpose of this letter is to transmit comments and suggested changes to the above-referenced rule workshop draft of proposed amendments to FDEP's Chapter 62-780, F.A.C. rule on contaminated site cleanup criteria. Below is a compendium of input and suggestions from a number of clients I represent on contaminated site cleanup issues.

General Comments

1. Conditional Site Closure. All of my clients support and utilize to the extent applicable those risk-based corrective action (RBCA) principles and provisions of Chapter 62-780, F.A.C. on a site specific, case-by-case basis. The Department, both Division of Waste Management and District Offices, should be commended for applying and implementing such program components as authorized by Florida Statutes and FDEP rules to the extent possible. The proposed rule amendments and any other appropriate revisions which foster RBCA contaminated site cleanup decision-making along such lines should be seriously considered and incorporated into the rules. This includes the important final step of authorizing conditional site closures where appropriate.



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Recently, discussions among Department personnel and regulated stakeholders have led to consideration of utilizing "governmental controls that impose restrictions on land use or resource use" as an alternative institutional control (IC). This policy, based upon applicable statutory authority and as set forth in past Division Director Jorge Caspary's memorandum of November 1, 2013, is sound. All of my clientele involved in the Department's waste cleanup program support the utilization of such referenced governmental controls, when applicable and appropriate, as an alternative IC when proposing and implementing conditional site closure. Based upon that input, I encourage the Department to codify this additional policy within Chapter 62-780, F.A.C.

Finally, I also recommend and advocate the use of "Delineated Areas" established under Chapter 62-524, F.A.C. as an additional alternative IC to be utilized in support of conditional site closure. Although no new delineated areas under such rule have been established in recent times, the past identification of groundwater contamination within such delineated areas would fit within the current utilization of ICs in support of conditional site closure under Chapter 62-780, F.A.C. I encourage FDEP to consider dusting off and utilizing prior and new delineated areas to be identified under Chapter 62-524, F.A.C. for present day purposes of conditional site closures for contaminated sites.

2. Pending 2016 Legislative Amendments. As you know, the Florida Legislature will take up proposed amendments to Chapter 376, F.S., related to regulation of contaminated sites in Florida. New definitions for the terms "background concentration" and "long-term natural attenuation," and other amendments to risk-based corrective action statutory language will be considered. Should any of the bills in this regard presently under consideration be finally enacted before the close of the 2016 legislative session, it is recommended that appropriate modifications to Chapter 62-780, F.A.C. be incorporated in furtherance of such legislative changes.

#### Specific Comments.

1. Rule 62-780.100.

Comment: Several of the guidelines and information sources listed should be reviewed and, if appropriate, updated. For example, subsection (9) on Toxicity

Test Methods references an Interoffice Memorandum of 6/14/04 that is most likely outdated. Further, if the ICPG is updated while Chapter 62-780 rulemaking is still underway, that update should be referenced.

2. Rule 62-780.150 (5) and (9).

Comment: Each of those subsections references a "grandfathering" provision. Those references specifically identify the possible utilization of a consent order, permit, or SRCO as the grandfathering instrument. However, there could be other documents, like a brownfield site BSRA, that could also serve as an appropriate grandfathering document.

Suggested Change: The terms "cleanup agreement document" and "CAD" under Rule 62-780.200 identify other such instruments that would be appropriate to reference. Accordingly, make reference to "or CAD" in both subsections (5)(b) and (9) on lines 96 and 113, respectively.

3. Rule 62-780.200.

Comment: It would be appropriate to conform any definitions which may be enacted into law during the 2016 legislative session by cross-reference to such statutes in the opening provisions of this rule section. Other potentially conflicting definitions such as for (3) "Background Concentrations" should be deleted. Additionally, it is noted that the term "poor quality" under subsection (35) could be better utilized under Chapter 62-780, if implementation guidance were to be developed and referenced for the benefit of department personnel and regulated interests. I have experienced inconsistent application and utilization of such term in processing site remediation cases within different FDEP District offices. Establishment of an appropriate policy and guidance in this area would help alleviate such inconsistencies.

4. Rule 62-780.600(2) and (3)(k).

Comment: On a few occasions, I have experienced a reluctance on the part of Department personnel to discuss a site remediation strategy which may include a potential conditional site closure, until and unless site assessment has been completed and a site assessment report approved. However, there may be a clear option or alternative for conditional site closure that may be known and

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available even before commencement of site assessment actions or during that process. The rule should make clear that such dialogue and consideration of a site remediation strategy is available and appropriate on a site-by-site basis even during the site assessment phase. That would ensure that RBCA flexibilities are applied even during such site assessment activities.

Suggested Change: In subsection (3)(k), on line 1171, after "proposed property use," insert "and whether engineering and institutional controls are appropriate,".

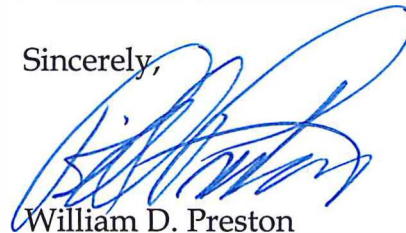
5. Rule 62-780.680(7).

Comment: Under paragraph (f), I support the reference to non-restrictive covenant types of institutional controls. However, the rule language should make more clear that a variety of alternative ICs may be utilized in approving a conditional site closure proposal. The reference to only "the rule or ordinance" upon which the institutional control is based may not adequately recognize that other alternative ICs may be utilized.

Suggested Change: On lines 2045-2046, strike "rule or ordinance" and insert "legal authority".

Should you or other Department reviewing staff have any questions with respect to any general or specific comments and suggested changes offered in this correspondence, please feel free to contact me at your convenience.

Sincerely,



William D. Preston

cc: Peter Cornais, [peter.cornais@dep.state.fl.us](mailto:peter.cornais@dep.state.fl.us)  
Rebecca Robinette, [rebecca.robinette@dep.state.fl.us](mailto:rebecca.robinette@dep.state.fl.us)

18 December 2015

Dr. Brian Dougherty, Administrator  
Division of Waste Management  
Florida Department of Environmental Protection  
Twin Towers Office Building, MS 4500  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Dear Brian:

On behalf of Orkin and Hazardous Substance & Waste Management Research, Inc. (HSWMR), I am submitting the enclosed written comments regarding activities of the Contaminated Media Forum (CMF), specifically related to Chapter 62-777, F.A.C., and regarding draft rule amendments to Chapter 62-780, F.A.C. Orkin and HSWMR greatly appreciate the opportunity to once again participate with the Department in addressing implementation and other policy development issues related to the agency's contamination cleanup programs.

**Comments – Contaminated Media Forum (CMF) / Chapter 62-777, F.A.C.**

***Hierarchy of Toxicological Guidance Values.*** As discussed during the November 3, 2015 CMF meeting, multiple apparent misapplications of the proposed 62-780 hierarchy resulted in preliminary proposed SCTLs that are orders of magnitude different (mostly more restrictive) than existing SCTLs. The most significant changes occur when Tier 2 (e.g., HEAST, HHBP) or Tier 3 (e.g., ITER, CalEPA) cancer-based values are chosen, even though Tier 1 (i.e., IRIS, PPRTV) sources do not identify cancer-based guidelines and Tier 1 non-cancer guidelines are available. The following table presents a few examples that have been identified for direct exposure residential SCTLs:

<b>Substance</b>	<b>Existing SCTL (mg/kg)</b>	<b>Proposed SCTL (mg/kg)</b>	<b>Basis for change</b>
MTBE	4,400	87	'05 based on IRIS RfC (still exists); '15 based on CalEPA oral CSF
Ethylbenzene	1,500	11	'05 based on IRIS RfD (still exists); '15 based on CalEPA oral CSF

Maneb	410	16	'05 based on IRIS RfD (still exists); '15 based on HHBP oral CSF
Permethrin	4,200	110	'05 based on IRIS RfD (still exists); '15 based on HHBP oral CSF

Note that in the specific cases of the pesticides maneb and permethrin, the proposed SCTLs are based on a Human Health Benchmarks for Pesticides (HHBP; Tier 2 value) determination of potential carcinogenicity. No such consensus determination on carcinogenicity has been reached by EPA/IRIS, so it is scientifically prudent to allow the well-established toxicological guidance process to run its course and delay such a significant change to SCTLs until such time that Tier 1 values are established. During the November 2015 CMF meeting, FDEP/UF committed to reevaluating their application of the hierarchy prior to the next CMF meeting early in 2016. It seems appropriate that if a Tier 1 value is identified for systemic effects, and no Tier 1 value is identified for potential carcinogenic effects, the hierarchy should not be further evaluated. Given the carcinogenicity and route-specific uncertainties associated with application of the toxicity value hierarchy, it may be advisable to consider development of a guidance document or technical memo explaining the selection rationale, particularly in cases where Tier 1 values are discounted.

***Physical/chemical properties (leachability).*** The issue of changes to physical/chemical properties primarily affects the leachability-based SCTLs. During the November 2015 CMF meeting, FDEP/UF explained that the changes arise from using a different chemical property estimation database than was previously used (EPI rather than SCDM). The property that expresses the most significant influence is the organic carbon partition coefficient ( $K_{oc}$ ). For certain substances (e.g., aldrin, DDE, heptachlor, permethrin, bromoxynil), the proposed  $K_{oc}$  value is orders of magnitude lower, resulting in proposed leachability SCTLs that are as much as 30-500 fold lower than the existing leachability SCTLs. We recommend that measured, rather than estimated,  $K_{oc}$  values be identified when significant changes (e.g., greater than 10-fold) are noted between existing and proposed values.

### **Comments - Chapter 62-780, F.A.C.**

***Rule 62-780.650(3)(b) – Lines 1617-1620.*** The proposed draft language suggests that the 90<sup>th</sup> percentile of the final exposure or risk distribution specifically should apply to a perceived sensitive population. The Probabilistic Risk Assessment (PRA) process is designed and operated to take into account age and population-specific characteristics that themselves serve to represent the sensitive subgroups of interest (e.g., children and women of child-bearing age). In PRA, the 90<sup>th</sup> percentile of risk inherently represents the subgroup of the population that has high contaminant uptake rates and low body weights, because the input distributions represent exposure variability among a representative population of receptors. This results in the 90<sup>th</sup> percentile of risk corresponding to the 90<sup>th</sup> percentile of the dose (mass of contaminant absorbed relative to body weight). It is therefore appropriate to say that when a concentration generates  $1.0 \times 10^{-6}$  lifetime incremental cancer risk (LICR) at the 90<sup>th</sup> percentile of the distribution of all receptors, sensitive subgroups (those with high doses) are protected. Artificially

Dr. Brian Dougherty

December 18, 2015

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imposing additional constraints on the process (e.g., forcing all exposure intervals to begin in childhood, or assuming that all receptors are pregnant females) distorts the intent and application of the PRA process. The proposed draft language inserted on lines 1617-1620 should be removed.

As always, we appreciate the opportunity to work with you and the Department on these important issues. Please call Doug Covert or me at 850-681-6894 when you have reviewed this information, so that we can answer any questions that you may have.

Sincerely,



Christopher M. Teaf, Ph.D.  
President & Director of Toxicology

CMT/dc

cc: Carl Eldred, Esq., Hopping Green & Sams, P.A.  
Gary Rogers, Rollins/Orkin