Conditional Closure Training

November 28, 2016
Agenda

• Introduction

• The Basics of Closures
  • Chapter 62-780, F.A.C.
  • RMO-1 through RMO-3 Closure Criteria
  • LSSI NFA

• Special Considerations
  • FDOT MOU
  • City/County Transportation Facilities/State Lands

• Legal Component
  • Title Work, Noticing, Recording
  • Institutional Control Procedure Guidance
  • Legal Case Tracking
The Basics of Closure

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Terminology

• No Further Action With Conditions (NFAC)
  • Also known as:
  • RMO II
  • Risk Based Closure
  • Closure With Conditions
  • Conditional Closure

• PRSR “purser” – Person Responsible for Site Rehabilitation

• NFA – No Further Action

• SRCO – Site Rehabilitation Completion Order
Risk-Based Closure

Achieve Safe Site Closure By **Eliminating/Reducing Risk**:

\[ \text{Risk} = \text{Exposure} \times \text{Toxicity} \]

- **RMO I** - Reduce or Eliminate **Toxicity**
  - Risk = 100 \times \sim 0 = 0

- **RMO II and III** - Reduce or Eliminate **Exposure**
  - Risk = 0 \times \sim 100 = 0
Institutional Control

- Institutional Control - Section 376.301 and 79, F.S.

  - The restriction on use of, or access to a site to eliminate or minimize exposure.
  - Examples - Include but not limited to deed restrictions, restrictive covenants (RC) or conservation easements
  - Other forms include government controls such as local ordinance, permits, agency rules, delineated areas, comprehensive land use planning and management, and FDEP consent orders
A NFAC May Be Used At Sites Where:

- The 62-780, F.A.C. Closure Criteria Are Met
- Cleanup Costs Are High
- Remediation Efforts Have Reached A Diminishing Return
- Contamination is Not Accessible
- The Owners Agrees To Restrict Exposure Through
  - Land Use or Engineering Control
  - Restrictive Covenant
- A Governmental Control Is Adequate and In-Place
- The Owner Wants To Avoid Site Disruption
Chapter 376, Florida Statute (F.S.)

- Sections 376.301(22), and 376.79(11) F.S. – Definition of Institutional Control (IC)
- Section 376.303(6), F.S. – IC Registry
- Subsection 376.30701(2)(d) – Engineering Controls for IC
- Subsection 376.3071(5)(b)4 – SRC Factors (RBCAs)
- Subsection 376.3078(4)(d) – Rehabilitation Criteria
- Subsection 376.81(1)(d) – ICs and ECs for Brownfield
Applicable Rules

Section 62-780.680, F.A.C. – NFA & NFA w/Controls

(1) - Risk Management Options Level I (RMO I)
(2) – Risk Management Options Level II (RMO II)
(3) – Risk Management Options Level III (RMO III)
(4) – PRSR Submits NFA Proposal
(5) – FDEP Provides PRSR w/ SRCO approving the NFA
(6) – Rejection of NFA
(7) – SRCO Requirements
(8) – Constructive Notice
(9) – Final Agency Action
• Latest ICPG Version - July 2016
• Routing/Review Procedures
• Multiple Attachments Including:
  • FDOT MOU Closure Process
  • Sample Restrictive Covenants:
    • Form A – When IC Applies to Entire Property
    • Form B – When IC Applies To A Portion of Property
  • Restrictive Covenant Checklist
NFAC Evaluation

- Free Product

- Soil Concentrations For
  - Direct Exposure
  - Leachability

- Ground Water Plume
NFA Criteria For Free Product

• **Current 62-780 -RMO I**
  • Free Product Not Present and
  • No fire or Explosion Hazard Exists or

• **Current 62-780 – RMO II and III**
  • And Removal Is Not Technological Feasible

• **Proposed 62-780 RMO II and III**
  • Free Product Not Present and
  • No fire or Explosion Hazard Exists or
  • Removal Is Not Technological Feasible or Cost Effective and
  • Free Product Not Migrating and Does Not Pose risk to human health public safety or environment
• Contaminant Concentrations Must Be Below:
  • The Background Concentrations
  • The Best Achievable Detection Limits
  • The Soil Cleanup Target Levels (SCTLs) Chapter 62-777, F.A.C. for Residential Direct Exposure and Leachability
  • The Average Soil Concentrations Calculated Using the 95% UCL approach are below Chapter 62-777, F.A.C. for Residential Direct Exposure and Leachability (Allowed in Proposed 62-780 for leachability)
• Levels Calculated Using Site Specific Soil Properties and Equations Found In Chapter 62-777, F.A.C., Figures 4,5,6, and 7 and Table VI.
• Fractionation Analysis of TRPH Levels Based On Site Specific Concentrations
• Determining Though the Direct Leachability Testing of Leachate From Synthetic Precipitation Leaching Procedure (SPLP) that Leachate Is below GW CTLs
• One Year of Ground Water Data May Be Used To Allow Soil Exceeding Leachability That Has Been Exposed To Elements For Two Years
• Alternative SCTLs Allowed With An Engineering Control Used To Prevent Human Exposure or Leaching From The Soil
  • Minimum of Two Feet of Clean Soil or
  • Impervious Cap To Prevent Leaching or Exposure

• May Use A Land Use Restriction Which Restricts Land Use To Commercial/Industrial, if Soil Levels are Below 62-777, Table II, F.A.C., Commercial Industrial Levels
## Examples From 62-777, F.A.C., Table II

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Direct Exposure Residential (mg/kg)</th>
<th>Direct Exposure Commercial/Industrial (mg/kg)</th>
<th>Leachability (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>1.2</td>
<td>1.7</td>
<td>.007</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>0.1</td>
<td>0.7</td>
<td>8</td>
</tr>
<tr>
<td>MTBE</td>
<td>4,400</td>
<td>24,000</td>
<td>.09</td>
</tr>
<tr>
<td>TRPH</td>
<td>460</td>
<td>2700</td>
<td>340</td>
</tr>
<tr>
<td>Trichloroethene (TCE)</td>
<td>6.4</td>
<td>9.3</td>
<td>.03</td>
</tr>
</tbody>
</table>
Proposed Change to 62-780

• Rule 62-780.680(1)2.a., FAC – Allows use of average concentrations based upon the 95% UCL approach from discrete or ISM sampling data for leachability

• Rule 62-780.680(2)(c)1.a., FAC – Allows the PRSR to elect to accept closure at levels that exceed CTLs derived from nuisance, organoleptic or aesthetic considerations for sites not eligible for state funding rehabilitation
• Adds Definition: “Incremental Sampling Methodology (ISM)” means a structured composite sampling and processing protocol that reduces data variability and provides a reasonably unbiased estimate of mean contaminant concentrations in a volume of soil. [Refer to “Incremental Sampling Methodology” referenced in subsection 62-780.100(21), F.A.C., for guidance.]
NFA Criteria for Ground Water

• **RMO - I** Groundwater Must Meet Chapter 62-777, F.A.C., Table I Criteria:
  - Groundwater or
  - Freshwater or Marine Surface Water

• **RMO – II** Groundwater:
  - May Meet Low Yield/Poor Quality Criteria and Be On-Site or
  - Be On-Site and Controlled With an Engineering Control or
  - In a Stable or Shrinking, On-Site, and Plume Less Than 1/4 Acre

• **RMO – III** Groundwater:
  - Plume Must Be Stable or Shrinking and Meet Appropriate CTLs at the IC Boundary
• Allowed For RMO II or III
• Permanent Containment That Prevents Ground Water Migration
  • Barrier Wall
  • Slurry Wall
• One Year Of Monitoring Data Is Required To Demonstrate Effectiveness
• Periodic Monitoring To Ensure Effectiveness
Slurry Walls
• For Program Sites the FDEP May Pay For:
  • Technical Evaluation of Site To Provide Closure Recommendations
  • Certification of Engineering Controls
  • Professional Land Survey or Special Purpose Survey
  • Recording Fees
  • Title Work

FDEP Can Not Pay For Legal Fees

• For Non-Program Sites the PRSR Is Responsible for All Expenses
NFAC Process

- For Funded Sites:
- Evaluate Closure/Remediation Strategy with ATC and Owner During Pre-RAP
- ATC Implements Remediation, Monitoring and/or Installs and Certifies Engineering Control
- Site Owner Prepares Restrictive Covenant
- IC Package Is Submitted With Draft RC or other IC
- OGC Review/Comments/Response
- Property Owner Publishes Notice of FDEPs Intent Use of Institutional Control or Engineering Control
- RC Signed By Property Owner and FDEP
- RC Recorded and Proof Provided
- SRCO Issued
- Information Added To ICR
• All Engineering Controls Must Have An Engineering Control Maintenance Plan

• The Plan Should Include:
  • Maintenance Requirements
  • Inspection Frequency
  • Criteria For Determining When The Engineering Control Has Failed, e.g.,
    • Large Cracks
    • Areas of Erosion
    • Increase in Ground Water Concentrations
• Reporting of Routine Inspection Results Is Not Required

• Any Failure of The Engineering Control Must Be Repaired Immediately

• Failure of an Engineering Control Designed To Prevent Migration of Ground Water Must Be Reported and Repaired Immediately
• GIS Data-Base/On-Line Tracking
  • Facility, Date, and Location
  • Engineering/Engineering Control Type
  • Describes the Contamination

• Instructions and Data Dictionary Are On-line
Low-Scored Site Initiative
Voluntary option for closure

- New type of closure for owners
  - Very Popular
  - Easy Button for some
- Some owners can get funding early
- If impacts are minor, some RPs will finish cleanup
LSSI Allows 2 Unique Things:

1. Unique “LSSI NFA” Closure
   - For Elig. & non-elig. sites
   - “Minimally Contaminated”
   - Entered into ICR

2. Funding to target closures
   - Allows <$35K each in SA & limited RA funding.
   - For eligible sites only
LSSI Closure Requirements

• Score 29 or less
• No excessively contaminated soil
• Plume is shrinking or stable
• No adverse effects on surface water
• Plume confined to source property, or under transportation facility where DEP has agreement for IC
• Groundwater impacts not a threat to permitted potable well
• Top 2’ soil below SCTLs or have controls
LSSI OUTCOMES

- SRCO
  - If “clean”

- LSSI NFA
  - If “minimally contaminated” below 2’

- LSSI NFAC
  - If minimally contaminated in top 2’
  - Rarely used

- Closure requirements not met
  - Parked, Back in line
• LSSI Closure

• Before an SRCO, LSSI NFA, or SRCOC can be issued, monitoring wells must be properly abandoned pursuant to Water Management District, local, or PRP rules and guidelines, as applicable.

• If LSSI NFA is approved, the closure must be entered into the Institutional Control Registry (ICR).
Options if LSSI Closure Requirements are Not Met

- Use \<$35K LSSI Limited RA funding to make site eligible for LSSI NFA
- Pursue an RMOII or III
- Hybrid closure – some parts closed under LSSI NFA, remaining parts closed with RMO I, II, or III
Conditional Closure Agreement

• Pursuant to Rule 62-772.401, if owner/participant agrees to a conditional closure, they may recommend an ATC

• This might not be appropriate for all sites
  • e.g. sites with a small, shallow potable well on-site

• CCA, forms, instructions available on website:
  • http://www.floridadep.gov/waste/petroleum-restoration/content/petroleum-cleanup-programs
Questions Or Comments?

u got it, babe
SPECIAL CONSIDERATIONS

Lauren Walker-Coleman, P.E. II
Outline

• FDEP/FDOT Memorandum of Understanding (MOU)
• Non-FDOT (City/County Road) Closure Process
• State Lands
FDEP/FDOT MOU

• Allows Conditional Closures For Discharges With Contamination in the FDOT’s Right-of-Way (ROW)

• FDOT ROW Map Note Used As An Institutional Control

• Takes advantage of the inherent “Barriers To Exposure” provided by the FDOT’s management of the ROW
  • Physical Barriers (i.e. road pavement, clean fill)
  • Administrative Barriers (i.e. FDOT permitting process that is designed to control all activities in the ROW)
  • No Need for Recording of Restrictive Covenant
Key Things to Remember

- Site must have an **approved** assessment

- A FDOT MOU Closure may be used to close discharges where the Source Property is adjacent to FDOT ROW

- Verify that it is a FDOT ROW

- The Source Property must qualify for closure by:
  - Meeting RMO I Criteria, or,
  - Establishment of Institutional Control (IC) or Engineering Control (EC) for Groundwater and Soil

- FDOT Property qualifies **only** for a control on groundwater

- Closures using the FDOT MOU are considered RMO III Closures since the contamination is off-site
“Person Responsible for Site Rehabilitation” (PRSR) submits Conditional SRCO Proposal to FDEP

Proposal should Include:

- Special Purpose Survey, Boundary Survey or Sketch and Description as defined in Chapter 5J-17, F.A.C.
- Summary of soil and groundwater data
- Legal Description and Map Note restricted area
- Proposed restrictions and requirements
- DOT ROW Map & Note signed by FL Licensed Surveyor
- Indemnity agreement between FDOT and RP/Discharger
- Draft recorded reference (Deed Notice)
Institutional Controls

• The Institutional Controls Procedure Guidance (ICPG) can be found at: [http://www.floridadep.gov/waste/waste/content/institutional-controls-registry](http://www.floridadep.gov/waste/waste/content/institutional-controls-registry)

• Guidance includes FDEP/FDOT MOU Closure Procedures and Exhibits

• FDEP/FDOT MOU and Non-FDOT MOU may also be downloaded from this webpage
• Section C – Creating and using Institutional Controls
  • Page 15 – FDEP FDOT Memorandum of Understanding

• Attachment 7 – Sample SM Letter to PRSR

• Attachment 32 – Procedure for Use of FDEP/FDOT MOU

• Attachment 33 – Sample FDOT Indemnity Agreement with RP/Discharger

• Attachment 34 – Recorded Reference (Deed Notice) for FDOT MOU ICs
ROW Map Note

PETROLEUM IMPACTED AREA
FDEP ID# COM_306705
FDOT FPN 21916714301
SRCO dtd__________

LATITUDE: 30°44’58.585"
LONGITUDE: -85°11’18.131"
STA: 161+50.08'
OFFSET: 5.89' R
FDOT MOU Closure Process

• FDEP SM & PE review Proposal. If sufficient:
  • SM sends Draft Exhibit A request letter to OGC for review

• Once OGC approves, FDEP sends MOU Exhibit A request letter to FDOT requesting Map Note with:
  • Statement that the discharge qualifies for closure
  • Groundwater and Soil Map and Data Tables
  • Source Property Owner information
  • Survey and Legal Description of the Area of Alternative Institutional Control
  • MAP Note: Facility ID and Data of the Closure Order
  • Indemnity Agreement

6/14/2017 FDEP-PRP
FDOT MOU Closure Process

- FDOT acknowledges request by letter (MOU Exhibit B)
- FDOT records Map Note on FDOT ROW map, MOU and Letters
- FDEP uploads MOU, Letters and Attachments, and ROW Map Note into Oculus
- RP/Discharger records the Map Note reference (Deed Notice) in the County Records Office
- FDEP issues Conditional SRCO and provides Oculus link to FDOT and RP/Discharger
- FDOT updates ROW Map Note with SRCO Issuance Date and sends to FDEP for upload to Oculus
Non-FDOT ROW Closures

- Allows Closures where contamination has migrated from Source Property to Transportation Facilities under Responsibility of City or County Governments

- Guidance on Non-FDOT ROW ICs guidance has been drafted

- MOU with Local Government developed on a case-by-case basis

- Route through Team Leader or County Contact
Non-FDOT ROW Closures

• **Information Needed:**

  • Map or Diagram showing extent of plume
  
  • Notice sent to Local Government regarding contamination on the Transportation Facility
  
  • Information about the status of the contamination
  
  • A Legal Description of the Source Property and diagram of the non-source property (Transportation Facility)
State Lands Closures

- Many State Lands owned by the State of Florida are managed under the Internal Improvement Trust Fund (IITF)

- State Agencies/Entities lease the land from the IITF

- Memo prepared

- Lease amended

- Land Use Plan changes
State Lands ICPG Reference

• Section C – Creating and using Institutional Controls
  • Page 24 – State Lands Encumbrances/State Lands Leases

• Attachment 15 - Division of State Lands/Board of Trustees Property
  • Summary of DSL IC Development Procedure

• Attachment 16 - Sample Division of State Lands Packet

• Attachment 17 - Sample Division of State Lands Lease Amendment

• Attachment 18 – Division of State Lands Management Plans
Examples

• FDEP/FDOT Closures
  • Jackson County Hospital – COM_306705
  • Former Tenneco # 726 – 139904003

• Non-FDOT Closures
  • Okaloosa County – LSSI Site FAC ID – 468512291

• State Lands
  • USF Moffitt Cancer Center – FAC ID -298838645