
AEHS WORKSHOP

Design and Implementation of Institutional Controls

March 15th, 2004

Michael Sowinski, J.D, EIT – DPRA, Inc.
Michael.Sowinski@DPRA.com

Bob Wenzlau, P.E. - Terradex, Inc.
Bob@Terradex.com

Introduction to Workshop

- 🔗 Introduction and Problem Statement Review
- 🔗 IC Design and Implementation (Mike – 45 Minutes)
- 🔗 Break
- 🔗 IC Tracking, Monitoring, Enforcement (Bob – 45 Minutes)
- 🔗 Break
- 🔗 Sample Problem Exercise - Group

Workshop Focus

- ❖ Why Should A Cleanup Rely, in Whole or in Part, on Institutional Controls Rather Than A More Complete Cleanup.
- ❖ Which Mechanisms and Tools Exist to Help Ensure that Institutional Controls Are Enforceable and Otherwise Reliable.
- ❖ Legal Issues Involved With Crafting ICs, Especially Deed Restrictions.

IC Design and Implementation Presentation Overview

IC Laws, Guidance, and Major Issues

- IC Introduction
- Federal IC Overview
- ASTM Guidance Overview
- State Cleanup IC Overview
- Model Environmental Covenant Act Overview
- The One Call Program
- IC Tracking, Monitoring and Enforcing

IC Design to Achieve Site Closure

- Threshold Considerations
- IC Design Preparations
- Cleanup vs. IC Use
- Legal Considerations Involved when Crafting ICs.

Introduction to ICs

- ❖ Legal or Administrative Tools Designed to Eliminate Exposure to Residual Contamination.
- ❖ ICs vs. AULs vs. Land Use Restrictions
 - IC refers to the legal or administrative tool.
 - AULs or LUCs refers to actual restrictions included within the provisions of an IC.

Introduction to ICs (Cont.)

 **ICs Begin Within Environmental Cleanup Decisions.**

 **Four (Five?) Categories (EPA, ASTM)**

- **Proprietary Controls (Chain of Title Controls)**
- **Government Controls**
- **Enforceable Agreements**
- **Informational Devices**
- **Soft ICs.**

Introduction to ICs (Cont.)

 Lurking Behind Each IC Lies Environmental Enforcement Authority

 Trends in IC Use

- Deed Restrictions at Single Parcel Sites
- Government Controls for Multiple Parcel Sites

 Monitoring and Enforcement

- Transaction-Related Enforcement
- Daily Use-Related Enforcement

Introduction to ICs (Cont.)

- ❖ The Evolution of IC Use and IC Issues.

Federal IC Overview

CERCLA IC Provisions (Pre-Brownfield Amendments)

- ❖ CERCLA § 121(d)(2)(B)(ii)(III) contemplates alternate concentration limits and the use of “enforceable measures that will preclude human exposure to the contaminated groundwater.”
- ❖ CERCLA § 120(h) requires federal facility deed transfers to contain “notice” concerning the presence of hazardous substances.
- ❖ CERCLA § 104(j)(1) authorizes the President to acquire any real property or any interest in real property “needed to conduct a remedial action” provided the state agrees to accept the interest after cleanup.

Federal IC Overview

CERCLA NCP Provisions

- ❖ *40 CFR 300.430(a)(1)(iii)(C)* and (D) set forth "**expectations**" that ICs will be used (1) in combination with treatment remedies and engineering controls, (2) to supplement engineering controls, (3) during the RI/FS or RA, or as a component of the completed remedy, and (4) not as the sole remedy unless active measures are impracticable.
- ❖ *40 CFR 300.430(e)(9)(iii)(C)(2)* requires an evaluation, during the screening of remedy alternatives, of the adequacy and reliability of institutional controls for managing treatment residuals and untreated waste.

Federal IC Overview (Cont.)

EPA IC Selection Guidance (EPA, 2000)

- ❖ ICs are appropriate if the cleanup does not result in unrestricted use and unlimited exposure.
- ❖ IC life cycle costs, strengths, weaknesses, monitoring and enforcement should be evaluated before selecting an IC.
- ❖ Inter-governmental cooperation should occur.
- ❖ Evaluate IC like just like engineered remedies.
- ❖ Layer ICs.
- ❖ Obtain promises, in writing, from person with the responsibility for implementation, monitoring, and enforcement.

IC Selection Guidance (Cont.)

- ❖ EPA should require an evaluation of the following balancing and modifying criteria
 - Long term effectiveness and permanence.
 - IC Short term effectiveness.
 - IC Implementability.
 - IC Cost.
 - State Acceptance (modifying criteria).
 - Local Government and Community Acceptance (modifying criteria).

2002 CERCLA Brownfield Amendments

Brownfield Bill's New CERCLA Defenses

- Innocent Purchaser, 42 U.S.C. § 9601(35)
- Bona Fide Purchaser, 42 U.S.C. § 9601 (40), 9607(r)
- Owners of Contiguous Property, 42 U.S.C. § 9607(q).

Pre-Acquisition Elements of Defenses

- Owner did not cause contamination and is not affiliated with person who caused contamination.
- Owner conducted “all appropriate inquiry” prior to purchase.

Post Acquisition Elements of Defenses

- Appropriate care and reasonable steps to
 - Stop any continuing release.
 - Prevent any threatened future release.
 - Comply with all land use restrictions and not impede the effectiveness of any ***institutional controls***. See 42 U.S.C. § 9601(40)(F); 42 U.S.C. § 9607(q)(1)(A)(V); 42 U.S.C. § 9601(35)(A).

EPA Brownfield Amendments “Common Elements” Guidance (EPA, 2003)

- ❖ Landowner must comply with any land-use restriction relied on in connection with a response action, *even if the institutional controls were not in place when the person purchased the property, and even where the restrictions were not properly implemented through an enforceable institutional control.*
- ❖ “Relied on” refers to ICs identified as a component of the remedy in, for example, remedy decision documents.

EPA 2003 "One Cleanup Program" IC Guidance (EPA, 2003)

- ❖ Recommends Annual Monitoring of ICs.
- ❖ Re-states the "Common Elements" message concerning IC compliance.
- ❖ Discusses legal issues concerning IC Implementation.
- ❖ CERCLA/RCRA-centric.
- ❖ Education more so than guidance.

ASTM E 2091-00 Guidance Overview (ASTM, 2000)

- ❖ Recommends a risk assessment, which identifies the risk and exposure pathways.
- ❖ Recommends identifying “activity and use limitations” to sever the exposure pathway.
 - Activity and use limitations encompass both physical controls and institutional controls.
- ❖ It then recommends screening the AULs:
 - *Effectiveness.* At cutting off risk pathways.
 - *Relation to Property Redevelopment Plans.*
 - *Implementability.* Under state or local law.
 - *Technical Practicability.* Of the activity and use limitation.
 - *Cost Prohibitiveness.* Of the activity and use limitation.
 - *Acceptability to Stakeholders.*
 - *Cost Effectiveness.* Complete cleanup vs. IC monitoring and operation.
- ❖ The Guidance also warns against crafting overbroad ICs.

State IC Overview

- ❖ ELI 50-State Study (ELI, 2002)
- ❖ Reviewed State Superfund, RCRA, Brownfield, and VCP programs.
 - 26 States possess specific statutory authority for IC use.
 - 38 States utilize deed restrictions
 - About 10, under IC-specific deed restriction authority.
 - 29 States utilize government controls
 - States typically include “re-opener” provisions in the case that ICs fail.
- ❖ Presentation Focus (examples of IC design requirements)
 - California
 - Texas
 - Florida

California IC Authority (1 of 5)

Authority to Execute Deed Restrictions

- The State Superfund Act, under § 25255.5(a)(1)(c) of Chapter 6.8 of the H&S Code, DTSC may enter into and enforce an “easement, covenant, restriction, or servitude.”
- The State RCRA Act, under § 25202.5 of Chapter 6.5 of the H&S Code, DTSC may require the owner of a “hazardous waste facility” to execute and record covenants that impose land use restrictions.
- Civil Code § 1471 provides broad authority for CA agencies (i.e. DTSC or the Water Board) to execute covenants restricting land use as a result of the presence of hazardous materials.

DTSC and Water Board Model Covenants (see Hand Out)

California (2 of 5)
DTSC 1990 OPP #87-14
Development and Implementation of Land Use Covenants

- ❖ Land use restrictions may be appropriate when there is residual contamination on a property.
- ❖ IC information should be available to local governments, the public, and real estate transaction participants.
- ❖ ICs should prevent inappropriate land use on property containing residual contamination or the surrounding property.

California (3 of 5)

DTSC Sensitive Use Memo #EO-02-002-MM

- ❖ Primarily intended to apply to sites where future “sensitive uses”
 - Residential use, schools, day care, hospitals, hospices.
- ❖ Allows IC use, under the NCP site screening process.
- ❖ IC use at sensitive sites should occur only in very limited circumstances
 - Monitoring difficulty
 - Nature of exposed population
- ❖ DTSC must consider.
 - The basis for and documentation of “technical impracticability”
 - Cost evaluation of cleanup to unrestricted use
 - Cost evaluation for partial cleanups
 - Consideration of loss in value to land for partial cleanup
 - Life cycle costs involved with implementing the IC.
 - A showing of IC reliability.

California (4 of 5)

DTSC IC Regulation 22 CCR 67391.1(a)

- ❖ Expressly authorizes IC use when residual contamination will remain at the property at levels which are not suitable for unrestricted use of the land.
- ❖ No IC approval by DTSC unless ICs are clearly set forth, and an implementation and enforcement plan is prepared.
- ❖ No completion certifications unless land use covenants properly executed and recorded.
- ❖ RP to pay all costs associated with the administration of land use covenants.

California (5 of 5) Water Board Resolution 92-49

- ❖ Cleanups must attain either background water quality or the best water quality which is reasonable.
- ❖ Alternative cleanup levels must attain the lowest level which is economically and technologically feasible.
 - Economic feasibility requires objective balancing of the incremental benefit of achieving cleanup levels versus the cost of doing so.
- ❖ Not reasonably affect present and anticipated beneficial use of water.
- ❖ Cleanup levels must provide the maximum benefit to the people of the state.
- ❖ A site may be closed if the level will be attained within a "reasonable period."

Texas IC Rules (1 of 3)

Overview

- ❖ TRRP (especially Tier 3) relies upon RBCA.
- ❖ Standard B cleanups contemplate IC Use.
- ❖ TCEQ May Execute and Enforce the Covenant
- ❖ RPs – Deed Notices
- ❖ Innocent Landowner – Deed Restriction.
- ❖ “Functionally Equivalent” Zoning/Local Ordinance in Lieu of Covenant.
- ❖ IC Triggering Events

Texas IC Rules (2 of 3)

IC Triggers/IC Content Requirements

- ❖ ***Commercial/Industrial Land Use*** (*no residential use*). Residential use includes hospitals, day care and similar facilities. IC must state that residential use may not occur without prior approval from TCEQ.
- ❖ ***Physical Controls***. Caps, parking lots, etc. IC must describe the control, why it exists, and that it may not be removed without TCEQ approval.
- ❖ ***Technical Impracticability***. If approved, IC must exist. IC must identify the TI zone, explain why it was established, list maintenance and monitoring requirements, warn against the use of and exposure to the residual contamination. TCEQ approval required prior to any IC modification.
- ❖ ***Future Exposure Prevention***. Vapor Intrusion expressly contemplated.
- ❖ ***Any Risk-Based Assessment***. To ensure that assumptions actually occur at property.

Texas IC Rules (3 of 3)

Off-Site Covenant

- If a non-responsible landowner refuses.
- Remediation is technically impracticable
- Court must decide the level of compensation required for imposing the restriction and, in turn, the IC seeker must pay that money to the court register.

Deed Restriction Requirements

- Metes and bounds description of the portion of the property to which the IC applies
- Plat map demarcating the IC
- An identification of the media impacted
- A statement description of property use limitations
- A legal description of the parcel.

RG-366/TRRP-16 November 2002

Model Covenant (see Hand Out)

Florida IC Rules (1 of 3)

- ❖ *IC Use is expressly authorized. See F.S.A. 376.30701(2)(d); 376.3071(5)(b)4; 376.3078(4)(d) and 376.81(1)(d); FDEP IC Procedures Guidance (Feb. 2004).*
- ❖ IC use may occur when “Conditional Closure.”
- ❖ ICs may be used in combination with “alternative cleanup target levels.”
- ❖ Types of Controls
 - *Restrictive Covenants.*
 - *Conservation Easements.*
 - *Government Controls.* Zoning ordinances and other local ordinances **may not** be used. Land Use Plans may not be used.

Florida IC Rules (2 of 3)

IC Use Decision Factors (FDEP, 2004):

- Length of time for control
- Off-site contamination. FDEP does not recommend placing ICs on off-site properties.
- Media contaminated
- Current/projected use of contaminated groundwater and surface water
- Current/projected use of the contaminated property and the land surrounding it.
- Probability of contamination spreading
- Nature of contamination (i.e., degradable, mobile)
- Location of receptors (i.e., water supply wells)
- Availability of public water supplies.
- Subdividing.

Florida IC Rules (3 of 3)

 Florida OGC IC Approval Required

 For Restrictive Covenant Approval:


- Certified Copy of the Deed, Containing a Legal Description.
- Legal description or survey of the part affected by the IC.
- A title search which, among other things, identifies mortgage holders, leases, easements.
- If necessary, a subordination of mortgage.

 Model Covenant (See Hand Out)

Model Uniform Environmental Covenant Act (1 of 7)

 **Policy goal** to provide a clear process for:

- Creating, modifying or terminating environmental covenants.
- Recording these instruments in way that ensures they will be reflected in the title abstract of the property in question.

 **Policy goal** to ensure that land use restrictions, monitoring requirements and engineering controls:

- “Run with the land.”
- Are effectively enforced over time as a valid real property servitude.

UECA (2 of 7)

- ❖ The Act defines “environmental covenants.”
 - Environmental covenants supersede all common law impediments, such as
 - Negative restriction and in-gross restriction issues.
 - Requirements for privity.
 - Touch and concern issues.
 - Assignments of interests.
 - Termination of interest by tax deed, foreclosure of a tax lien, or by adverse possession, prescription, abandonment, waiver, lack of enforcement, or a similar doctrines
 - Marketable Title Act issues.
- ❖ Modeled after the Model Conservation Easement.

UECA (3 of 7)

- ❖ A “holder” is a the grantee of an environmental covenant.
 - Any person can be a holder.
 - Holders may enforce the environmental covenant.
 - Environmental Agencies may be holders, but they need not be.
- ❖ The Act provides for broad enforcement.
 - By holders
 - By the local government in which the property sits
 - By the Agency (even if it is not a holder)
 - By a person whose interest or collateral liability may be affected by the covenant violation, and by other persons expressly identified in the covenant.

UECA (4 of 7)

 The Act empowers Environmental Agencies.

- Agencies must approve an Environmental Covenant in order for it to be effective.
- If they choose, Environmental Agencies may be holders. The Agency may also require that local government or other persons or agencies receive copies of the covenant.

 The Act maintains the common law rules concerning subordinate property rights.

- The Act does not mandate that a senior prior interest owner must subordinate that interest to the environmental covenant, or otherwise be bound by the covenant.
- But, a person may subordinate their property interest to the environmental covenant, without assuming obligations imposed by the covenant.


UECA (5 of 7)

- ❖ The Act mandates 6 items within the environmental covenant
 - A reference to the Act.
 - “Legally sufficient” description of the property subject to the covenant (remember 3 dimensional issue).
 - The activity and use limitations imposed upon the real property.
 - The identify of every holder.
 - Signature of every fee simple owner.
 - Name and location of the administrative record reflecting the environmental response action.

UECA (6 of 7)

- ❖ 6 Optional Items to be Included Within Restrictive Covenants.
 - Notice requirements prior to future use changes.
 - Periodic compliance reporting requirements.
 - Rights of access.
 - Narrative description of the residual contamination, exposure pathways.
 - Additional limitations on amendment or termination.
 - Additional rights for the holder.

UECA (7 of 7)

 The Act does not authorize the use of real property that is otherwise prohibited by zoning, other land use regulations, or other recorded instruments.

 <http://www.nccusl.org/nccusl/ActSearchResults.aspx>

IC Tracking, Monitoring & Enforcement

- ❖ ASTM Work Group Effort
- ❖ EPA IC Tracking Efforts
- ❖ Two Categories of Tracking, Monitoring and Enforcement Issues.
 - Transaction Related Issues, i.e.
 - Land sale
 - Lease agreements
 - Daily Use Issues, i.e.
 - Excavation
 - Well Drilling
- ❖ See Hand Out.

One Call Systems Overview

- ❖ One-call notification systems exist in each of the States and the District of Columbia.
- ❖ Primary purpose of preventing damage to underground facilities.
 - Generally, underground facilities include underground lines, systems or other physical conveyance used for distributing petroleum, natural gas, telecommunications, electricity, water, steam, or sewerage.
- ❖ State one-call notification systems provide a communication link between excavators and operators of underground facilities. See 55 Fed. Reg. 38688 (providing additional discussion).
- ❖ State one-call systems are governed by State one-call laws.
 - Liability schemes attach liability to a party in the event that an excavation damages an underground facility.

Part II - IC Design and Implementation Process and Strategy

- ❖ Part II Contemplates the Situation Where, at a Cleanup Site, the Following Issues Exist.
 - Why Should A Cleanup Rely on Institutional Controls Rather Than A More Complete Cleanup.
 - Whether Institutional Controls Are Enforceable and Otherwise Reliable.
 - Legal Considerations When Crafting ICs.
- ❖ General Framework for Designing ICs, Synthesizing Elements of Federal, State, ASTM and Other Requirements.

IC Design and Implementation Strategy

Overview

- ❖ 1 - Threshold Considerations.
- ❖ 2 – Initial Preparations.
- ❖ 3 - Cleanup vs. Control (Deciding Upon and Negotiating For the Use of ICs).
- ❖ 4 - Legal Considerations.

1 - Threshold Considerations

- ❖ Responsible Party or BFPP Seeking the IC.
- ❖ Off-site versus On-Site Contamination.
- ❖ Future land use plan.

2 - Initial Preparations

Prepare Conceptual Site Model

- Identify Source, Pathway, Receptors

Initial IC-Related Research

- Identify Government Controls
 - Government Control ICs may exist.
 - Zoning – ICs must be consistent with zoning.
 - Land Use Plans for the Surrounding Area
- IC-Related Legal Rules
 - Rules Related to Allowing IC Use
 - Rules Related to Enforcing ICs

3 - Cleanup vs. Control (Deciding and Negotiating for the Use of ICs)

- ❖ Discretion of the Agency – tactical.
- ❖ The Ability of IC to Sever the Residual Risk Pathway
 - Degree of risk that the IC will protect against.
- ❖ Practicability of Full Cleanup.
 - Technical
 - Economic (also consider future use benefit vs. non use)
- ❖ IC Cost vs. Full Cleanup Cost.
- ❖ Reliability of the IC
 - Transaction reliability “run with the land”
 - Daily reliability
 - Monitoring
 - Enforcement
- ❖ Compatibility with zoning, land use planning, local ordinances.

4 - Legal Considerations When Crafting the Deed Restriction (1 of 4)

- ❖ Legal authority of jurisdiction
 - Statutory
 - Common law
- ❖ Describing the land use limitations
 - Area affected by residual contamination
 - Survey
 - Legal description
 - Prohibited uses
 - Land use limitations, i.e.,
 - Industrial, commercial, residential
 - Activity limitations, i.e.
 - water use for drinking vs. industrial
 - excavation restriction vs. excavation under specified conditions.

4 - Legal Considerations When Crafting the Deed Restriction (2 of 4)

The right to enforce

- The Grantee.
 - State Agency, Private Party, Private Trust
- 3rd party beneficiary

Compliance obligations generally

- RP vs. subsequent owners
 - Liability allocation for compliance violations
- Deed restriction requirements vs. environmental report requirements (Brownfield amendments considerations).

4 - Legal Considerations When Crafting the Deed Restriction (3 of 4)

- ❖ Monitoring and Enforcement Obligations
 - Responsible Party
 - Subsequent owners
 - Agency
 - Private company
- ❖ Requirements for notice upon future land/activity change.
- ❖ Termination provisions.

4 - Legal Considerations When Crafting the Deed Restriction (4 of 4)

- ◆ Other Legal Considerations
 - Subrogation Agreements
 - Existing or future lease interests
 - Regulatory takings concerns
 - Marketable Title Act considerations.
 - Statutory recording requirements