



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 19 2003

**OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE**

Addressee List

Re: Transmittal of Draft Guidance "Institutional Controls: A Guide to Implementing, Monitoring and Enforcing Institutional Controls at Superfund, Brownfields, Federal Facility, UST and RCRA Corrective Action Cleanups" for Review

Dear Addressee:

The purpose of this letter is to transmit the attached draft guidance entitled, "Institutional Controls: A Guide to Implementing, Monitoring and Enforcing Institutional Controls at Superfund, Brownfields, Federal Facilities, UST and RCRA Corrective Action Cleanups" for your review and comment. This guidance was developed with input from stakeholders at a number of IC forums over the past two years. This guidance is not intended to address all of the possible issues and barriers impacting the effective implementation, monitoring and enforcement of ICs, but rather, to focus on some of the more common cross-cutting issues.

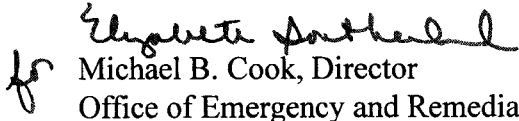
This guidance has been through two US EPA Regional reviews and is now being sent to you because of your knowledge and experience in dealing with complex IC implementation, monitoring and enforcement issues. Because this guidance was written for a multi-program and multi-agency target audience, we are seeking a broad external review. For this reason, we encourage you to circulate this document to other interested parties for their review and comment as well.

We are requesting that comments be submitted by April 19, 2003. Comments can be forwarded electronically to bellot.michael@epa.gov, faxed comments can be sent to (703) 603-9133 and hard copies can be mailed to:

Michael E. Bellot
U.S. EPA
1200 Pennsylvania Ave., N.W., 5202G
Washington, D.C. 20460

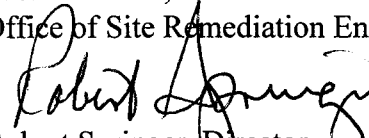
If you have questions regarding this request for review or the attached draft guidance, please contact Michael Bellot at (703) 603-8905 or bellot.michael@epa.gov

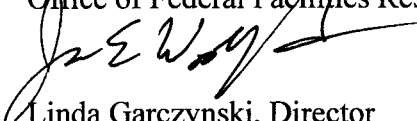
Sincerely,


Michael B. Cook, Director
Office of Emergency and Remedial Response



Susan Bromm, Director
Office of Site Remediation Enforcement

James E. Woolford, Director
Office of Federal Facilities Restoration and Reuse


Robert Springer, Director
Office of Solid Waste


Linda Garczynski, Director
Office of Brownfields Cleanup and Redevelopment

Cliff Rothenstein, Director
Office of Underground Storage Tanks


Stephen D. Luftig, OSWER Senior Advisor
Land Reuse



Enclosure

cc: Marianne Lamont Horinko, Assistant Administrator OSWER
John Peter Saurez, Assistant Administrator, OECA

Institutional Controls: A Guide to Implementing, Monitoring, and Enforcing Institutional Controls at Superfund, Brownfields, Federal Facility, UST and RCRA Corrective Action Cleanups

Office of Solid Waste and Emergency Response

PURPOSE

The purpose of this guidance is to: (1) provide Superfund, Brownfields, Federal Facility, Underground Storage Tank (UST) and Resource Conservation and Recovery Act (RCRA) corrective action site managers and site attorneys¹ with an overview of responsibilities for the implementation, monitoring, and enforcement of institutional controls (ICs) at their sites; and (2) discuss some of the common issues site managers and site attorneys may encounter when carrying out these responsibilities. This is the second in a series of guidance documents on the use of ICs. The first fact sheet entitled, *Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups*, September 2000 (OSWER 9355.0-74FS-P, EPA 540-F-00-005), provides guidance for identifying, evaluating, and selecting ICs. This guidance is available on the internet at <http://www.epa.gov/superfund/action/ic/index.htm>.

This guidance was developed to address crosscutting multi-program IC issues, however, there are significant programmatic differences between CERCLA, RCRA, UST and Brownfields that need to be recognized. For this reason, this document is intended to be used as a general guide and site managers and site attorneys should work very closely on all aspects of ICs. Assistance is also available to the site team by EPA Headquarters staff in the Office of Emergency and Remedial Response (OERR), the Office of Brownfields Cleanup and Redevelopment (OBCR), the Office of Site Remediation Enforcement (OSRE), the Office of Solid Waste (OSW), the Office of Underground Storage Tanks (OUST), the Federal Facilities Restoration and Reuse Office (FFRRO), and the Office of General Counsel (OGC) for any site-

¹Site manager and site attorney, as used in this document, refers to EPA regional and State personnel involved in Superfund, Brownfields, Federal Facility, UST and RCRA corrective action cleanups. The term "site" is used generically in this guidance to also represent RCRA and Federal "facilities".

Table of Contents

PURPOSE	1
DEFINITION AND IMPORTANCE OF INSTITUTIONAL CONTROLS	2
INSTITUTIONAL CONTROL PLANNING	3
IMPLEMENTATION OF INSTITUTIONAL CONTROLS	4
MONITORING INSTITUTIONAL CONTROLS ...	17
ENFORCEMENT OF INSTITUTIONAL CONTROLS	19
CONCLUSION	22
APPENDIX A	24
APPENDIX B	25

specific IC issues that may arise².

²This document provides guidance to EPA Regions and States involved in Superfund, Brownfields, Federal Facility, UST and RCRA corrective action cleanups. It also provides guidance to the public and the regulated community on how EPA intends to implement, monitor and enforce institutional controls as part of a cleanup decision. The guidance is designed to establish national policy on these issues. The document does not, however, substitute for EPA's regulations, nor is it a regulation itself. Thus, it does not impose legally binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the circumstances. EPA and State decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate. Any decisions regarding a particular facility will be made based on the applicable statutes and regulations. Therefore, interested parties are free to raise questions about the appropriateness of the application of this guidance to a particular situation, and EPA will consider whether or not the recommendations or interpretations in the guidance are appropriate in that situation. EPA may

DEFINITION AND IMPORTANCE OF INSTITUTIONAL CONTROLS

EPA defines ICs as non-engineered instruments, such as administrative and/or legal controls, that help to minimize the potential for human exposure to contamination and/or protect the integrity of a remedy. ICs work by limiting land or resource use and/or by providing information that helps modify or guide human behavior at the site. Some common examples of ICs include zoning restrictions, building or excavation permits, well drilling prohibitions and easements and covenants.

This guidance was developed to provide general information to site teams working on Superfund, Brownfields, Federal Facility, UST and RCRA corrective action cleanups. Although there are similarities in the use of ICs in cleanups, there are also several important differences which are discussed throughout the guidance. This is not intended to be an exhaustive list, but it does illustrate that program specific considerations do exist and should be taken into consideration. Because site-specific Brownfields and UST cleanup requirements are often implemented at the State level, they can vary considerably. Therefore, the intent of this guidance is to highlight crosscutting principles rather than identify the many program-specific variations. Although the cleanup programs do have important differences, the cleanup objectives are similar in that they require that ICs be protective of human health and the environment.

ICs often play an important role in remedies to help minimize the potential for exposure and protect engineered remedies. However, EPA begins the CERCLA remedy selection process with the expectation that treatment will be used to address principal threat wastes³ and that groundwater will be returned to its beneficial use whenever practicable and in a reasonable time frame.⁴ In other words, the use of ICs is not a way “around” treatment, but rather part of a balanced, practical approach to site cleanup that relies on both engineered and non-engineered remedies. For CERCLA cleanups, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) emphasizes that ICs are meant to supplement engineering controls during all phases of cleanup and may be a necessary component of the completed remedy.

change this guidance in the future.

³Principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur.

⁴For more information on remedy selection under CERCLA, see *Rules of Thumb for Superfund Remedy Selection*, EPA 540-R-97-013, OSWER 9355.0-69.

Some Key Differences Regarding ICs Under CERCLA and RCRA

CERCLA:

- Remedies may be Fund-lead
- ICs are evaluated through a Feasibility Study (FS) and selected through a Record of Decision (ROD)
- Remedy evaluation criteria are set forth in the National Contingency Plan (NCP)
- EPA may acquire a property interest under CERCLA § 104(j)

RCRA:

- There is no “Fund” analogous to the CERCLA Fund, although trust funds may be established
- ICs are usually evaluated through a Corrective Measure Study (CMS), or during development of post-closure care responsibilities, and established through a permit, order or alternative enforcement document
- RCRA evaluation criteria were published in the Federal Register but are not a regulation
- RCRA does not expressly grant EPA authority to acquire property interests to conduct a cleanup
- Because RCRA is a State-delegated program, States typically have primary responsibility in selecting, implementing, monitoring, and enforcing ICs.

The NCP cautions against the use of ICs as the sole remedy unless active response measures are determined to be impracticable.⁵

The use of ICs in the context of RCRA is discussed in the Federal Register notice issued by EPA in 1996.⁶ This Federal Register notice provides very similar cautions to those in the NCP for the use of ICs at RCRA corrective action sites. In addition, draft guidance published in 2002⁷ discusses various administrative issues associated with completion of corrective actions at RCRA facilities,

⁵40 CFR 300.430(a)(1)(iii)(A), (B), (C), and (D)

⁶Advance Notice of Proposed Rule Making, Corrective Action for Releases from Solid Waste Management Units at Hazardous Waste Management Facilities, 61FR19432, 19448 (1996).

⁷Announcement of Availability and Request for Comment on “Completion of Corrective Action Activities at RCRA Facilities” 67 FR 9174-9178 (2002)

including two types of completion determinations: “Corrective Action Complete,” and “Corrective Action Complete with Controls.” The latter of these categories include sites where ICs are required.

Even with the expressed expectations and cautions, EPA understands that ICs can and often do play important roles in both protecting the integrity of a remedy and minimizing the potential for exposure to ensure both the short- and long-term protection of human health and the environment at both RCRA and CERCLA cleanups. The authorities, expectations and requirements for cleanups at Brownfields and UST sites vary considerably. The State site manager and attorney are encouraged to work together to determine the State-specific IC requirements and expectations.

For ease of use, this guidance is organized into four general sections: planning, implementation, monitoring, and enforcement. Within these sections, four categories of IC mechanisms are addressed:

(1) *Proprietary Controls* - these controls are based on State law and use a variety of tools to prohibit activities that may compromise the effectiveness of the remedy or restrict activities or future uses of resources that may result in unacceptable risk to human health or the environment. They may also be used to provide site access for operation and maintenance activities. The most common examples of proprietary controls are easements and covenants.

(2) *Governmental Controls* - these controls impose land or resource restrictions using the authority of an existing unit of government. Typical examples of governmental controls include zoning, building codes, drilling permit requirements and State or local groundwater use regulations.

(3) *Enforcement and Permit Tools with IC Components* - these types of legal tools include orders, permits, and consent decrees. These instruments may be issued unilaterally or negotiated to compel a party to limit certain site activities as well as ensure the performance of affirmative obligations (e.g., to monitor and report on an IC’s effectiveness).

(4) *Informational Devices* - these tools provide information or notification about whether a remedy is operating as designed and/or that residual or contained contamination may remain on site. Typical information devices include State registries, deed notices, and advisories.

The general categories of ICs identified above are typically available for Superfund, Brownfields, UST, Federal Facility or RCRA corrective action cleanups. However, some of the individual mechanisms may not be available (e.g., county zoning on an active Federal Facility). For a more detailed discussion of the types and relative strengths and

weaknesses of the four categories of ICs, consult the EPA Fact Sheet entitled, *Institutional Controls: A Site Manager’s Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups*, September 2000 (OSWER 9355.0-74FSP, EPA 540-F-00-005). This guidance is available on the internet at <http://www.epa.gov/superfund/action/ic/index.htm>.

INSTITUTIONAL CONTROL PLANNING

One of the most critical aspects for ensuring that ICs are implemented, monitored, and enforced properly is thorough planning. Full life-cycle planning (i.e., implementation, monitoring, reporting, enforcement, modification and termination) is recommended to ensure the long-term durability, reliability, and effectiveness of ICs. Many of the problems identified by practitioners to date could have been eliminated by critically evaluating and thoroughly planning for the entire IC life-cycle early in the remedy selection/design process.

There are two key issues that the site manager and site attorney should carefully assess as part of their early IC evaluation process: (1) what are the legal and practical limits of the available tools; and (2) which parties will ultimately be responsible for the necessary activities through each phase of the life cycle of the IC. This should take place early in the cleanup process, with a preliminary IC evaluation as part of the Remedial Investigation/Feasibility Study (RI/FS) report under CERCLA, the Engineering Evaluation/Cost Analysis study (EE/CA) for CERCLA sites addressed through non-time critical removals, the RCRA Corrective Measures Study (CMS) for RCRA corrective actions and similar Brownfield and UST investigation and decision documents. During the remedy evaluation process, the site manager and site attorney should seek input from the State and local governments, the responsible parties, the site owner(s), and the affected community. Early cooperation and coordination between federal, State and local governments in the selection, implementation and monitoring of ICs is critical to their implementability, long-term reliability, durability, and effectiveness, particularly when there is a need for ICs on land owned by parties who are not responsible for the contamination. Whenever possible, agreements with States and/or local agencies regarding their respective IC implementation, monitoring, reporting and enforcement responsibilities should be documented in writing.⁸ The final remedy decision document should

⁸The NCP (40 CFR 300.510 (c)(1)) requires State assurance of the implementation of ICs for Fund-lead sites when appropriate. It states: “...the state must assure that any institutional controls implemented as part of the remedial act at a site are in place, reliable, and will remain in place after the initiation of O&M. The state and EPA shall consult on a plan for operation and maintenance prior to the initiation of a remedial action.”

include a requirement that a formal, enforceable institutional control implementation plan (ICIP) that documents responsibilities over the full life-cycle of each IC be developed prior to or at the same time as the design for the physical remedy. This requirement should also be documented in an enforceable document. At sites where long-term ICs are a component of the CERCLA removal action, the site manager should develop or oversee the development of an ICIP during the EE/CA, or as early as circumstances allow. In all cases, the ICIP should be completed prior to removal completion.

Another important early consideration is the need for a complete and realistic estimate of the long-term costs of ICs. Calculating the full life-cycle cost is an essential part of the IC planning process. This activity is important for several reasons. First, an accurate estimate of the full cost of ICs is necessary to compare the cost-effectiveness of remedies that rely on ICs to those that implement additional engineered measures to eliminate the need for ICs. Secondly, it is important to recognize that IC costs may extend well beyond the traditional cost calculation horizon of 30 years. These costs should be acknowledged when developing remedy estimates. Thirdly, accurate remedy cost estimates are essential for ensuring that agencies, governments, responsible parties and other organizations with the long-term responsibility for implementing, monitoring, and enforcing the ICs know their financial liability prior to entering into settlements or other agreements obligating these requirements.⁹

IMPLEMENTATION OF INSTITUTIONAL CONTROLS

Where ICs have been selected as part of a remedy, a variety of steps may need to be taken to implement them effectively. These steps, and who conducts them, vary depending on the type of IC, the specific circumstances at each site, and which authorities are being applied. This section is divided into five major subsections:

- General Issues;
- Implementing Proprietary Controls;
- Implementing Governmental Controls;
- Implementing Informational Devices; and
- Other Considerations for Implementing ICs.

General Issues

The Threshold for Institutional Controls - Unlimited Use and Unrestricted Exposure

The policy threshold for determining whether ICs are appropriate at a site is whether the site can support unlimited use and unrestricted exposure (regardless of the

⁹ Guidance on IC planning and cost estimation is being developed.

reasonably anticipated future land use or whether an engineered remedy requires protection).¹⁰ For example, if residual contamination will limit a site's use or if there are any exposure limitations required for the remedy to be protective (i.e., the remedy is based on an assumption that future exposure will be limited to an industrial scenario), an IC is generally appropriate. The unlimited use and unrestricted exposure threshold is often confused with the concept of a "residential cleanup." The following are two common situations that illustrate how residential uses may be appropriate at a site, yet the sites do not meet the unlimited use and unrestricted exposure threshold. The first example involves residential properties located over a contaminated groundwater plume where the properties are not the source of contamination. In this situation, well drilling restrictions may be put in place to limit the use of groundwater rather than negotiating covenants or easements with a large number of parties. Similarly, activities that inform the public of potential risk may serve as appropriate ICs. The second example is a property where a soil remediation was completed to a depth that supports residential use, but underlying deep soil contamination remains. Deep excavation prohibitions that are enforced through local permits and reinforced through an ongoing public outreach campaign may be appropriate for this site. In both examples, use restrictions and exposure limits (however minimal) are likely necessary to maintain the long-term protectiveness of the remedy, yet the property can be safe for residential use.

For additional information on selecting the appropriate ICs for such scenarios, the site manager and site attorney can refer to the EPA fact sheet entitled *Institutional Controls: A Site Manager's Guide to Identifying, Evaluating, and Selecting ICs at Superfund and RCRA Corrective Action Cleanups*.

Selecting the Appropriate IC Language

Selecting the appropriate IC language is critical to the establishment of a remedy that can be implemented, monitored, enforced, revised and tracked in a manner that is protective of human health and the environment as long as the IC is needed. Vague or inappropriate IC language often leads to confusion and conflict in the implementation, monitoring and enforcement of ICs and in some cases may result in creating unintended rights and/or obligations. This section discusses how to identify and overcome potential issues regarding IC language in a variety of contexts.

Subject Matter Experts and Stakeholder Input in the IC Language Development Process. It may be useful to consult a number of subject-matter experts and stakeholders in the development of appropriate IC language. The level

¹⁰ An IC may also be required by an Applicable or Relevant and Appropriate Requirement (ARAR) under CERCLA (i.e., a promulgated State IC Registry requirement).

of expertise may depend upon whether a remedy decision, remedy design, settlement/enforcement document, or permit is being drafted. For example, RCRA program documents that may contain IC language include Statements of Basis (SBs), Final Decisions (FDs), Responses to Comments (RTCs), permit documents (issued or modified) and orders. Under CERCLA, similar documents include Records of Decision (RODs), action memos, orders and consent decrees. Brownfields and UST sites often have similar decision and enforcement documents. Special expertise may be needed to develop language for proprietary controls, governmental controls, or informational devices. Because of the legal significance of many ICs, site attorneys should take the lead in developing the appropriate IC language.

In general, the site attorney may consider consulting with officials from organizations such as the State attorney general's office, the State environmental agency, local government planning agencies, the responsible party¹¹, the site owner (if different from the responsible party), the Office of Enforcement and Compliance Assurance (OECA), Office of General Counsel (OGC), and appropriate community stakeholders for specific IC language considerations.

The site attorney should also consider having any final language reviewed by other attorneys with appropriate legal expertise. For example, because State laws vary greatly, it may be useful to have covenants and easements reviewed by attorneys with expertise in the real property law of the jurisdiction where the site is located. Similarly, for notices to be recorded in the local land records, the site attorney should consult with an attorney familiar with the recording statutes of that jurisdiction. For enforcement lead sites, enforcement documents should require the responsible parties to obtain a certification from a real estate attorney attesting that the covenant, easement or notice meets the appropriate requirements for the jurisdiction. In the case of governmental controls such as zoning, it may be prudent to have the proposed restriction reviewed by local government attorneys to ensure that it can be implemented and enforced.

Through active interagency and intergovernmental coordination, the site attorney and site manager can better ensure that IC language leads to effective ICs that can be appropriately implemented, monitored, and enforced. Likewise, proactive community outreach activities can foster stakeholder "buy-in" and make the ICs more reliable, durable and effective over time.

¹¹It is recognized that the terminology used in the different programs varies. For purposes of this guidance, "responsible party" is a generic term meaning a private party or group of parties responsible for funding and/or conducting a cleanup.

Language Content. The site attorney should carefully examine State and local laws relevant to the ICs being considered during the CERCLA Feasibility Study, RCRA CMS or equivalent Brownfields and UST remedy decision documents. To ensure a thorough evaluation, this should be done as a standard practice during the identification and analysis of the remedy (i.e., during the Applicable or Relevant and Appropriate Requirements identification process for CERCLA sites). Some of the key issues that should be explored as parts of this analysis are whether the State has the legal authority and is willing to accept the transfer of an interest in real estate; whether real property law in the jurisdiction can be used to implement the selected IC in a way that will make it binding on future land owners (i.e., "run with the land"); whether there are any restrictions on the use of appurtenant easements (interest transferred effects an adjoining property) versus in gross easements (interest transfer does not affect an adjoining property); whether a proprietary control can function in perpetuity, if necessary; the legal authority for implementation and enforcement of proprietary controls; the limits of local government zoning authority; and who can be the grantee.

In addition, other issues that should be considered during the language development process include:

- *Notification to lessees.* Enforcement documents such as administrative orders on consent (AOCs) and consent decrees (CDs) may reference existing lease agreements and require lessors to notify existing and future lessees and sublessees of the residual contamination and the restrictions on the use of the property. Also, a notice of the residual contamination and use restrictions should be included in any subsequent leases or subleases of the property and such leases and subleases should be made subject to any proprietary controls.
- *Notification of EPA, State, and local government.* The site attorney and site manager should determine whether proprietary controls and enforceable documents should require the signator or owner of a proprietary interest to notify EPA, as well as the State and local governments, of any changes in land use, property transfers, or any other activity that may affect the protectiveness of the IC and/or the engineered remedy. In addition, the IC should have clear provisions for notification in the event of a failure of the IC.
- *Termination.* Provisions should be developed that establish the criteria that must be met to terminate a particular IC and who has the authority to make and implement that determination.
- *Language for site description.* The site manager should consider using other support to assist in the development of site description language for IC

documents. For example, at some sites ICs have been applied to the entire site rather than the precise area requiring the restriction. This results in problems later because the use of areas that should not have been subject to the IC was restricted. This illustrates the importance of an accurate description of the parcel boundaries and the exact location of any residual contaminants. It is also helpful to note the location of any structures (including temporary structures associated with remedial activities), zoning, ownership, and other information deemed relevant for the intended use of the site. In addition, it should be noted that the location and dimensions of the residual contamination may change over time (e.g., due to contaminant migration or attenuation).

- *Expectations for acquisition of proprietary controls.* A description of what responsible parties are expected to do to obtain proprietary controls from others should be included in enforceable agreements/permits (but not in real estate documents).

Specificity of Language in Decision Documents, Permits and Other Documents. One of the challenges site attorneys and site managers face in developing appropriate IC language is the need for flexibility versus specificity regarding the types of ICs that are necessary. Vague or missing language about ICs in the description of the selected remedy often causes implementation problems, but overly prescriptive requirements may not account for the emergence of new IC tools, remedial outcomes that differ from what was anticipated when the decision document was written, or for the evolution of short-term interim controls into long-term ICs. This is especially important as more States are developing new statutes that reduce common law barriers to implementing proprietary controls. As a general principle, site managers and site attorneys are encouraged to present information in decision documents that helps the public understand the impacts of the specific ICs and their relationship with the overall remedy, clearly describe the objectives to be attained, specify any required performance standards, discuss the kinds of controls envisioned and include enough information to show that effective implementation can be reasonably expected, discuss plans for monitoring and, where appropriate, discuss enforcement of the anticipated IC mechanism(s). Without specific information on the ICs, the site manager and site attorney may be unable to interpret the intent of the remedy selection document and the public may not fully understand the impacts of the ICs. In some cases, it may be appropriate to include alternative or contingent remedies in the remedy decision documents to build in flexibility and avoid the need for changes later if, for example, an IC should fail to be implemented, needs to be modified, or is terminated prematurely. The appropriate decision document should

also address the submission of important post-remedy decision documents, such as IC implementation and assurance plans, IC requirements in O&M plans, and the scope of five-year or other periodic remedy reviews to ensure adequate monitoring and oversight of the IC. Detailed information on responsibility for monitoring, reporting, and enforcing should be specified in an enforceable implementation plan or in the enforcement document/permit itself. However, in some circumstances it may be appropriate to add these requirements and commitments for performance in the decision document.

Modifying Existing Decision Documents. In some cases, site managers and site attorneys may be faced with older decision documents or permits that contain vague or incomplete IC language. The purpose of this section is to provide the site manager and site attorney with options for dealing with these types of issues. Depending on the site circumstances, a number of possible responses may be appropriate.

Under CERCLA, if the change is deemed not significant or minor the ROD can be clarified through a memo to the post-ROD site file. This is the least administratively burdensome option for clarifying IC requirements. If the change is determined to be significant, but not fundamental, an Explanation of Significant Difference (ESD) can be used. In some instances, a site manager and site attorney may determine that, while an analysis of the site circumstances indicates that an ESD is appropriate, it may also be desirable to include a comment period to address sites where there is significant public interest.

Another option for establishing IC requirements in a CERCLA ROD involves the completion of a ROD amendment. A ROD amendment may be appropriate where a fundamental change to the remedy is necessary. An example may be that the site cannot support unlimited use and unrestricted exposure and ICs were not formally evaluated or included in the remedy decision. In this case the public would not have been afforded the opportunity to review and comment on that portion of the remedy. It is generally thought that this type of change would rise to the level of a fundamental remedy modification. Once the determination has been made that a remedy decision needs to be revised, it is also important to revisit the requirements of the applicable provisions of the enforceable agreement. The key point for the site manager and site attorney is to ensure that the IC requirements are enforceable. For more information on preparing CERCLA remedies, see “A Guide to Preparing Superfund Proposed Plans, Records of Decision, and other Remedy Selection Decision Documents, July 1999, EPA540-R-98-031, OSWER 9200.1-23.P.”

Under RCRA, a permit modification or change to a corrective action order may be necessary if the previously understood conditions, selected remedies, or overall operations change. The final permit modification should be accompanied by the Response to Comments (RTC) document. The RTC is prepared for the signature of the EPA Regional Administrator or the signatory of the document that is used to implement the corrective action (i.e., permit modification or corrective action order). If the selected remedy, including any ICs, differs from the proposed remedy as discussed in the Statement of Basis (SB), the final permit modification will reflect such changes.

As stated previously, Brownfield and UST cleanup requirements vary by State authority, so the State site manager and site attorney should research the existing administrative procedures for modifying remedy decisions.

Role of Local Governments and Communities

A local government is often the only entity that has legal authority to implement certain types of ICs (e.g., zoning restrictions) chosen in remedies. While EPA and the State may take the lead on response actions, local governments play an important role in determining the future use of land at the site and hence may need to play an active role in implementing, monitoring, and enforcing certain ICs. Furthermore, it is important that site managers involve the appropriate local government agencies in discussions on the types of controls that are being considered as early in the remedial process as possible. Local government officials can offer valuable information on the land use controls available in their jurisdiction and may offer creative solutions that protect human health and the environment while also protecting other local stakeholder interests. Site managers and attorneys should understand jurisdictional and departmental roles and responsibilities when working with local government. Local governments should also be given the opportunity to provide input on the anticipated future land use at the site before a remedy is chosen that may facilitate site reuse. Failure to involve local governments and communities can result in the delay of IC implementation or the selection of an IC that cannot be implemented for legal, administrative, or other reasons. It is important during the planning process for the site manager and site attorney determine the capability and willingness of the local government to implement and enforce the proposed ICs. More detailed IC planning information is available in the fact sheet *Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups*, September 2000 (OSWER 9355.0-74FS-P, EPA 540-F-00-005), and in the section on "Implementing Governmental Controls" in this guidance.

In certain cases under CERCLA, cooperative agreements may be developed to assist the local government in the implementation of the required ICs at Fund-lead sites. The site manager and site attorney can also work with local agencies for direct compensation from responsible parties for the implementation, monitoring, and enforcement of ICs at responsible party-lead Brownfield, RCRA and UST sites. Also, the site manager may consider providing training for local governments tailored to their specific role with regard to ICs. The following is a list of some of the key roles local government and communities can play in the effective identification, evaluation, implementation, monitoring, reporting and enforcement of ICs.

Some Key Roles for Local Governments and Communities

- Provide input on the anticipated future land use at the site.
- Provide information and input on the available land use controls within the jurisdiction of the local government.
- Implement, monitor, and enforce zoning regulations.
- Evaluate building permit requests, site plans, and zoning applications.
- Provide notice to EPA and the State regarding land use changes at the site.

State Assurance for O&M at Fund-Lead CERCLA Sites

Section 104(c)(3)(A) of CERCLA requires the State to provide assurance that it will assume responsibility for operations and maintenance (O&M) of the selected remedy before a Fund-financed remedial action is implemented. The NCP (40 CFR 300.510(c)(1)) requires the State to assure that any ICs implemented as part of the remedial action at the site are in place, reliable, and will remain in place after the initiation of O&M. These assurances are to be documented in a cooperative agreement for State-lead sites, or a Superfund State Contract for Fund-lead sites.

In some cases, States may be reluctant to provide the necessary IC assurances.¹² Two common obstacles to obtaining State assurances are: (1) the State lacks the necessary resources to provide the assurances; and (2) the actual responsibility for implementing an IC resides with

¹²For Fund-lead sites, the State must assure payment of O&M costs. Therefore, cooperative agreements can be used for the implementation of ICs, but they cannot be used to fund the State or local agencies for monitoring and enforcing ICs at Fund-lead sites.

another entity (e.g., local government). Where States are reluctant to provide the required assurances, the site manager and site attorney should look for innovative ways in which the State could fulfill its obligations. For example, if the State is reluctant to give an assurance because the IC requires the local agency to perform a function or activity, an agreement, based on adequate authority, could be developed to fund the local government to implement the ICs and enforceable agreements could be developed among EPA, the State, and the local government where the local government formally assumes those IC responsibilities. This funding and formalization of responsibilities may enable the State to provide the necessary assurance. However, if the State is unwilling or unable to provide this assurance, the site manager and site attorney may be required to look to other ICs or, if necessary, choose an alternate remedy. Therefore, it is important that a site manager and site attorney fully understand the capability and willingness of the State to provide assurances for ICs before remedy decisions are made. The RCRA, Brownfields and UST programs typically do not require these types of assurances.

ICs and Landowners Who Did Not Contribute to the Contamination

A remedy may require the imposition of ICs on properties owned by parties that have not contributed to the contamination. These parties will generally fall into one of the following three categories: 1) not liable; 2) conditional limitations on, or exclusions from liability; and 3) liable but did not handle and/or cause or contribute to the contamination. This section discusses some issues to consider when contemplating a remedy which calls for a landowner who falls into one of these categories to take steps to implement and/or maintain institutional controls.

Non-Liable Parties

Under CERCLA many owners of contaminated property generally are liable, but Brownfields, UST, and RCRA have different liability provisions. However, regardless of the program, there may be instances where a remedy calls for a restriction to be placed on the property of a non-liable party (i.e., when an IC is required to protect the integrity of a groundwater sampling well that is up gradient of the contamination). Involving the community and local government early during the remedy decision process is particularly important in these situations, where, for example, property owners other than just the owner of the property from where the contamination originated will be directly impacted by the proposed remedy. *For more information on community involvement, see Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups*, September 2000 (OSWER 9355.0-74FS-P, EPA 540-F-00-005).

While proprietary ICs may be appropriate in this type of situation, they may also be more challenging to establish, given that the party is not legally responsible for the remedy. EPA has broad authority to obtain property access without compensation under CERCLA 104(e) and authority to acquire interests under 104(j). However, depending upon the State and/or regulatory program, these authorities may not be available. In extreme cases, it may be necessary for a responsible party to provide compensation to the non-liable party as part of their agreement to maintain an IC on their property. Governmental controls, such as zoning or groundwater use restrictions, therefore, may provide a practical alternative to proprietary controls. However, as a general rule, when choosing between proprietary and governmental controls, the cost of acquisition should be balanced against the less certain durability and effectiveness of a governmental control. Informational devices may also be used to address properties owned by non-liable parties. Some potentially useful tools include education and training on how to control exposure, how to voluntarily monitor engineered remedies and report breaches to the appropriate agency, and identifying on-site activities that may compromise the effectiveness of the engineered remedy.

Conditional Limitations on or Exclusions from Landowner's Liability

Following passage of the Small Business Liability Relief and Brownfields Revitalization Act, Pub. Law 107-118 (the Act), CERCLA now conditionally limits the liability of certain contiguous and other similarly situated property owners, and bona fide prospective purchasers. The Act also further defines the scope of the innocent landowner defense. These limits on liability are conditional because they each require parties to perform certain ongoing obligations. These ongoing obligations include, but are not limited to, complying with any land use restrictions established or relied on in connection with the response action; not impeding the effectiveness or integrity of any institutional control employed in connection with a response action; and taking reasonable steps regarding exposure to any previously released hazardous substance. Generally, EPA believes that these obligations require an owner to agree to implement and maintain ICs on their property in order to retain their limitation on CERCLA liability.

Another group of parties whose liability may be limited are those that seek the "third-party" defense under CERCLA § 107(b)(3). One element of establishing this defense is demonstrating that the owner has exercised "due care with respect to the hazardous substance concerned...." Implementing and maintaining ICs may be a factor in determining due care.

Liable Owners

Another category of parties are landowners who have not caused or contributed to the contamination, nor allowed it to be deposited on their property, but are still liable under CERCLA Section 107. In some cases, EPA may exercise its enforcement discretion and not hold these parties responsible for the majority of the cleanup activities. However, these parties may still be required to implement, maintain, and/or monitor ICs, if selected as part of the remedy.

Implementing Proprietary Controls

Real property and contract law provides a variety of tools to restrict or affect the use of property. Common examples of these proprietary controls include covenants and easements restricting future land use or prohibiting activities that may compromise specific engineering remedies. For a proprietary control such as an easement to be put in place, a transaction typically occurs in which a property interest is conveyed from the owner of the land to some other party who will be the holder and, in some cases, the enforcer of the interest. The implementation of a proprietary control may or may not be part of a larger transaction involving the sale or transfer of the underlying fee estate. Some States do not consider certain proprietary controls to constitute interests in real estate (e.g., covenants). However, the process for implementing such a control will typically be similar to that needed when the control does constitute an interest in real estate.

The specific steps required to implement a proprietary control will depend on the jurisdiction in which the property is located and site-specific factors like whether it is a responsible party-lead or Fund-lead Superfund site, a Federal facility, Brownfield, UST site or a RCRA facility. Other factors affecting the establishment of proprietary controls include: (1) whether the party implementing the proprietary control is a responsible party implementing the remedy, a facility owner/operator, or some other party; (2) whether the property owner is willing to retain or convey the necessary interests in real property or enter into a covenant; and (3) who the holder of the proprietary control will be.

At most responsible party-lead sites, the responsibility for implementing proprietary controls typically rests with the responsible party or facility owner/operator. This activity may be pursuant to a consent decree, administrative or voluntary cleanup order, permit or other mechanism. Regardless of the type of document, at a minimum it should state the objective of the IC, the specific type of proprietary control anticipated to be required, the party who will be the holder of the IC, and a requirement that the responsible party or owner/operator provide notice to EPA and/or the State if the control is violated. The responsible party or

owner/operator's obligations will depend on whether it owns the affected property. Generally, when the responsible party or owner/operator owns the land that is being restricted, it should commit to an enforceable proprietary control. If the remedy requires restricting the use of land not owned by the responsible party or owner/operator, the responsible party or owner/operator should commit to use its best efforts to obtain the necessary proprietary interest. This will likely require that the responsible party or owner/operator compensate the landowners for the proprietary control. To expedite the valuation of the property interests, one or more independent appraisals may be required. If the responsible party or facility owner/operator cannot obtain the required interests despite its best efforts, and EPA and/or the State acquires the interests instead, the responsible party may be required to reimburse EPA and/or the State for all costs incurred in acquiring the interests.

The responsible party or owner/operator may be required to obtain the services of an experienced real estate attorney in the design and implementation of proprietary controls. This is important because the exact requirements will vary by the type of control and the jurisdiction. At a minimum, the control should provide a detailed legal description of the site, a complete description of the types and location of residual contaminants, the parties involved, provisions for third party enforcement (as necessary), the parties' rights, the resource/use restrictions, language to assure that the IC is binding on subsequent purchasers (i.e., that the proprietary control "runs with the land"), and specific notice and approval requirements for modifying or terminating the control. Title documentation, including surveys and insurance, may also be required. A draft proprietary control should be developed by the responsible party or owner/operator and reviewed and approved by the site attorney and site manager. Depending upon the complexity of the control and/or jurisdiction, it may also need to be reviewed and approved by the EPA Office of General Counsel and/or State Attorney General. If it is determined that the United States is to be the grantee of a property interest at a private site, the U.S. Department of Justice (DOJ) will review and approve the title to the property interest to be acquired unless the assistance of another Federal agency with delegated approval authority is obtained. Once the document has been approved by the regulatory agency, the responsible party or owner/operator should ensure that it is executed and recorded. The site manager should place a copy in the site file.

Implementing Proprietary Controls at CERCLA Fund-Lead Sites

If the cleanup is Fund-lead under CERCLA, EPA or the State (depending upon site lead) has the responsibility for implementing the control and/or conveyance of any property interests. Administratively, the process is similar

to that taken by a responsible party at a responsible party-lead site. Because these controls are largely legal in nature, site attorneys will typically be responsible for drafting IC language. However, the site manager and site attorney will typically work together to complete the required steps for actual implementation. One of the key responsibilities for the site manager is to provide the attorney(s) with a clear scope of the restrictions required to protect human health and the environment and/or the remedy. State Attorney General offices and local attorneys can be excellent resources for identifying the specific jurisdictional requirements for the control to be implemented.

The provision of just compensation and the power of condemnation through the exercise of eminent domain are two important implementation issues that site managers and site attorneys may face.

- *Just Compensation* - Prior to the initiation of negotiations to acquire real property or interests in real property, EPA should establish an amount which it believes is just compensation. As a practical matter, the fair market value of real property interests to be acquired for use as proprietary controls may be nominal due to offsetting benefits of the cleanup project (See Section B-12 of the Uniform Appraisal Standards for Federal Land Acquisitions (2000) prepared by the Interagency Land Acquisition Conference for a discussion of offsetting benefits. <http://www.usdoj.gov/enrd/land-ack/yb20001.pdf>. EPA may seek a donation of such interests from landowners in accordance with 49 CFR 24.108. If the lead agency attempts to acquire a property interest by donation, the site manager and site attorney should consider the possibility that a property owner might demand compensation for conveying the property interest. The costs of acquiring property interests would typically be recoverable. However, EPA may choose to acquire interests in real property by negotiated purchase and provide just compensation if a donation cannot be obtained. If compensation issues arise, the site manager should work with the appropriate State, EPA regional and Headquarters attorneys. In general, if a property owner is a responsible party, compensation issues include site valuation and offsets for response to cost liability.
- *Condemnation* - Obtaining a voluntary conveyance is always preferable to initiating a condemnation action. Federal land acquisition policy requires agencies to make every reasonable effort to acquire real property expeditiously by negotiation (See 49 CFR 24.102(a)). However, if a property owner is unwilling to sell, is willing to

sell but agreement cannot be reached on price, or if the owner is unable to cure title defects, the lead agency may, under certain circumstances, institute condemnation proceedings under federal or State law. If condemnation is being considered under CERCLA section 104(j), the site manager and site attorney should contact OGC for assistance. If condemnation is sought under other authorities, coordination with experts under that authority should be initiated early in the process.

Other Proprietary Control Implementation Issues

Another critical issue in the effective implementation of a proprietary control is choosing the correct grantee. Generally, the party with primary responsibility for monitoring and enforcing a proprietary control should hold title to the real property interest (i.e., be the “grantee”), although other arrangements may be made. Examples of possible grantees of the property interest include EPA, States, responsible parties, local governments, civic or other associations (if authorized under State law to hold title to real property and take legal action to maintain an IC), conservation organizations, and trusts. A thorough evaluation of the viability of potential grantees should be performed prior to the remedy selection process. In evaluating potential grantees, consideration should be given to: (1) whether the potential grantee is likely to be in existence for the required duration of the control; and (2) whether the grantee is willing and able to maintain the IC (e.g., by expending necessary funds to maintain the control, and/or taking legal action against any party that violates the proprietary control). If a suitable grantee cannot be identified, then alternative ICs or a change in the engineered remedy may be necessary.

EPA may choose to be the grantee of a proprietary control at a CERCLA site to ensure that site use is consistent with the remedy. EPA may also perform this role where the land subject to restrictions belongs to a responsible party and it is desired that a less-than-fee interest proprietary control be implemented (the owner of the property cannot create such an IC through a conveyance to himself). However, as discussed in the section “State Assurance Requirements for Acquiring Real Estate Interests under CERCLA,” the State must agree to accept transfer of certain real estate interests following completion of the remedial action. If it is ultimately determined that the United States will be purchasing a real estate interest, 40 U.S.C. § 255 requires, as a precondition of acquisition, that the Attorney General review and approve the sufficiency of the title. This means that title evidence must be obtained, the land must be physically inspected, and the conveyance instrument must be prepared. Authority to review the title rests with the Land Acquisition Section, Environment and Natural Resources Division, Department of Justice, or with the U.S. Army Corps of Engineers. More detailed procedural

guidance is available in DOJ's *Procedural Guide for the Acquisition of Real Property by Government Agencies* (1972). Although this guide is somewhat out of date with regard to appraisal matters, it is still current with regard to direct acquisition (negotiated purchase) and condemnation procedures. Also, *Title Standards 2001* (<http://www.usdoj.gov/enrd/title.htm>) contains detailed information on acceptable forms of title evidence and requirements for the form of conveyance to the U.S.

A settling party or facility owner/operator may acquire a real property interest from other landowners as part of its obligation to ensure that the remedy is properly implemented. By taking title to an easement or similar property interest, the party or facility owner/operator ensures that they will be in a position to enforce the IC. Furthermore, they will often have an incentive to enforce the IC because a failure could make further remedial actions necessary. The chief disadvantage of this approach is that the lead agency may be unable to enforce the control directly unless State law allows for third party enforcement. In that case, the lead agency may attempt to compel the responsible party or facility owner/operator to carry out its obligations under a consent decree, order, or permit. If the responsible party or facility owner/operator is unresponsive or bankrupt, this approach may be ineffective and, at a minimum, the enforcement of the control may be substantially delayed. To facilitate monitoring of the IC, the enforcement document and/or permit should also require notice to EPA and/or the State, as appropriate, upon any breach of the IC.

Trusts and other organizations, such as local community or conservancy groups, may also serve as suitable grantees. In evaluating these potential grantees, the site manager and site attorney should consider such factors as whether the entity has the resources and incentive to effectively enforce the control, whether the group is likely to remain viable for the necessary life of the control, and whether it is appropriate to assign this responsibility to an entity that is not accountable through a consent decree, order, permit or other enforceable instrument (unless EPA or the State is a third party beneficiary).

Drafting Effective Proprietary Controls. As previously discussed, a proprietary control needs to be in a form that satisfies the laws of the jurisdiction in which it will be filed to be implementable and legally recognized and/or enforceable. During the development of the legal instrument, it may be necessary to have the site surveyed to document properly the location of the affected area, to review the title of the property to identify all parties who have proprietary interests, and ensure that the precise name of the grantor (as it appears on the title) is used in the instrument. Generic language should generally be avoided; rather, the language of each document should be tailored to

the site characteristics and the objectives and/or performance standards of the remedy decision document such that it ultimately maintains the protectiveness of the remedy.

Proprietary controls such as an easement should contain language of conveyance to effectuate a transfer of an interest in real property. As a general rule, such language is drafted in terms of a grantor (seller) conveying a property interest to a grantee (purchaser). Because proprietary controls are often used to ensure that restrictions run with the land, it is important that this be clearly stated in the document. In addition to the previously identified issues, the following guidelines should be considered in drafting proprietary controls:

- Express clearly whether the control is intended to run with land;
- Provide mechanisms for modification and/or termination;
- Require notification of EPA and/or the State upon sale or lease.

The proprietary control should also identify as clearly as possible the area to be restricted, particularly where less than an entire parcel is affected. Failure to be clear about the affected area may complicate efforts to enforce the restriction and unnecessarily restrict reuse on unaffected areas of the parcel.

Finally, the site manager and site attorney should resolve any "subordination" issues early in the IC selection and evaluation process before implementing a proprietary control. Real property interests in a given property are subject to a system of priority according to the order in which they are recorded in most States. At a Superfund, Brownfield, Federal Facility, UST site or RCRA facility, the property may be subject to several recorded interests such as mortgages, tax liens, utility easements, and judgments. To avoid a situation where a proprietary control is subordinate to a prior or "senior" interest, a thorough title search should be performed to identify all parties holding prior interests in the property from whom subordination agreements may be required. Unrecorded interests, such as leases, may also need to be subordinated to ensure that lessees abide by the easement/covenant. A subordination agreement is a legally binding agreement by which a party holding an otherwise senior lien or other property interest consents to a change in the order of priority relative to another party holding an interest in the same real property. Obtaining a subordination agreement helps ensure that the IC is enforceable against all parties with an interest in the property and not extinguished if a superior lien holder forecloses on the property. If best efforts do not result in a subordination agreement, the site manager and site attorney should consider adding additional ICs, utilizing a different

combination of ICs or, in some cases, changing the remedy. The issue of subordination may be especially important where the surface rights in land are separate from mineral or water rights and the exercise of subsurface rights may adversely affect the IC.

State Legislation for Environmental Proprietary Controls. Some States, such as California, Connecticut and Colorado, have addressed some of the legal impediments to proprietary controls through legislation. Such legislation may address issues such as the rule against perpetuities, allowing the IC to run with the land, indemnification of the State, IC language, notification to the State of building permit applications from local governments, notification of lessees of the IC, enforcement, and the elimination of common law impediments. The site manager and site attorney should contact the State attorney general's office before the remedy is chosen to determine whether there are any such statutes.

State Assurance Requirements for Acquiring Real Estate Interests Under CERCLA

EPA can acquire real property or any interest in real property under CERCLA 104(j) to conduct a remedial action, although the State must agree to accept transfer of certain real estate interests following completion of the remedial action. However, whether a specific proprietary control constitutes a real estate interest under CERCLA §104(j), thereby requiring State assurance, is a complicated issue that requires site-specific determinations. The site attorney may consult with OGC to determine whether specific proprietary controls would require State assurances under §104(j)(2). The procedures for acquiring interests in real property are subject to the provisions of EPA's CERCLA Delegation 14-30, "Acquisition of Real Property." Acquisition by EPA of interests in real property should be coordinated with OERR, OSRE and OGC.

In the event that it is necessary for a real estate interest to be transferred to EPA, and a determination is made that the State assurance requirement under §104(j) applies, the State or another other party should provide written assurance prior to such transfer that it will accept the transfer of the interest following completion of the remedial action. This assurance should then be documented through a Superfund State Contract, cooperative agreement, or other document signed pursuant to the NCP.

There are a few common challenges with the transfer of real estate interests from EPA to a State. For example, some State agencies lack the authority to accept a real estate interest transfer. In other States, real estate transfers can be accepted, but they are managed by a property management agency and not by an environmental agency, potentially leading to unreliable monitoring and enforcement of the IC.

A few State agencies have authority to transfer real estate interests to third parties such as conservation trusts, although the State is still required to provide the required assurances. This situation may present challenges for some States because it involves assurances for a third party's responsibilities. Therefore, it is important that the site manager and site attorney understand the State-specific requirements prior to the selection of ICs that require a property acquisition.

If a State is unwilling to accept title, either before or after completion of the remedial action, a number of other options can be considered. One option is to use other types of ICs. Governmental controls and CERCLA §106 orders are not property interests, and thus do not trigger the State assurance requirements under CERCLA §104(j)(2). Another option is to have the real estate interest conveyed to a party other than the federal government. For example, if a third party acquires a real estate interest and holds it in its own name, the CERCLA §104(j) assurance is not triggered. To minimize disruption, the best practice is to raise the issue of the assurance early, such as during the RI/FS or development of the proposed plan, and certainly before the State concurs on the ROD.

At responsible party-lead sites, CERCLA §104(j) allows EPA to hold the real estate interest until the remedial action is complete. Once the remedial action is complete, another entity must take the real estate interest or the interest must be terminated.

In short, as a matter of practice, EPA transfers or releases all real estate interests before a site enters the O&M phase, regardless of who will ultimately accept the real estate interest (e.g., the State or some other entity). The site manager and site attorney should thoroughly evaluate the transferee's willingness and capability to fulfill its IC responsibilities for the expected life of the IC.

In addition to the special requirements above, the State is sometimes the sole entity responsible for the implementation, monitoring and enforcement of ICs identified in a CERCLA remedy. In some cases the ICs that are chosen are State mechanisms (i.e., State groundwater management zones or registries), in other cases the State may oversee or lead cleanups. This illustrates the important roles and responsibilities of the States in ensuring the long-term protectiveness of CERCLA remedies.

There is no equivalent RCRA, Brownfield or UST authority to that of CERCLA §104(j). For this reason, if EPA provides oversight or is otherwise involved in a non-CERCLA cleanup, EPA is not expressly authorized by statute to acquire real property. However, the State may have such authority as a matter of State law. The following

is a summary of some of the key roles States play in implementing, monitoring and enforcing ICs.

Some Key State Roles for Implementing, Monitoring and Enforcing ICs

- The State conducts O&M at CERCLA Fund-Lead sites which includes ICs.
- The State must assure that it will accept the transfer of certain real estate interests acquired by EPA at CERCLA sites prior to the acquisition.
- The State may have the sole authority to implement, monitor and enforce certain ICs (i.e., groundwater use or well drilling restrictions).
- The State may issue advisories, maintain a registry of hazardous waste sites, and/or obtain an enforceable interest in the IC.

Implementing Governmental Controls

State and local governments generally have a broad range of regulatory authority to implement a variety of ICs. This authority includes the ability to impose land use controls, and establish building codes and groundwater restrictions, as well as requiring informational devices such as public advisories and establishing State registries of hazardous waste sites. These regulatory and informational devices may serve as highly effective ICs if they are appropriately selected, implemented, monitored, and enforced. However, because each State and local government has different laws and regulations on land use, the site attorney should review those laws and regulations as they pertain to the ICs at a specific site. See the section “Selecting Appropriate IC Language” above for further discussion.

Groundwater Use Restrictions. Groundwater use restrictions are frequently used to limit or prohibit certain uses of groundwater. Implementation of such restrictions depends upon State laws governing groundwater ownership and use. Numerous States have adopted laws that could be used to restrict groundwater use at former hazardous waste sites. Groundwater laws commonly involve water use restrictions and well construction and abandonment requirements. This is a broad category and such restrictions can take a variety of forms including: the establishment of groundwater management zones or protection areas; prohibitions or limitations on certain uses of groundwater in

particular areas; capping or closing of wells; and limitations on the drilling of new wells. State agencies with the authority to establish groundwater use restrictions typically have a well-defined administrative process that should be followed. The site manager should work with the appropriate State program staff to become familiar with the appropriate process and ensure that the appropriate documents and approvals are completed. In many cases, the implementation of State or local groundwater use restrictions takes a significant amount of time. For this reason, the site manager is encouraged to ensure that the administrative process begins early and to actively monitor the progress in implementing this type of IC.

Well construction permits can also be utilized as a groundwater use restriction. A number of State and local governments have adopted statutes controlling new well installations or requiring permits for existing wells. These permitting programs may include requirements for well installation; licensing of well drillers; prohibitions on the drilling of new wells in areas of contamination; and requirements and controls on the operation of wells (withdrawal rates and pumping rates). These types of governmental controls also often have specific administrative processes that need to be completed. The site manager should ensure that early coordination occurs with the appropriate permitting agency and pro-actively monitor the implementation progress.

Zoning Ordinances. Zoning is an exercise of police power, which is defined as the authority of government to exercise controls to protect the public’s health, safety, morals, and general welfare. Zoning ordinances typically consist of a map indicating the various land use zones in the community, and text that sets forth the regulations for the development of land. An ordinance may regulate land use, building height, area of structures, density of population, and the overall intensity of use. Zoning can serve as an effective institutional control when a large number of parcels are affected by the remedy. For example, an overlay zone could be used to restrict development along a contaminated stream.

The authority to regulate land use, with the exception of federal lands, falls within the domain of State and Tribal governments. However, States generally delegate much of this regulatory authority to municipal and county governments. Therefore, the site manager and site attorney will most often work with municipal and county officials to implement zoning controls.

To implement zoning controls, the site manager and site attorney should first determine which local government, if any, has zoning jurisdiction over the site. The site manager and site attorney should then meet with the planning staff of the jurisdiction to discuss the objectives of the ICs and

specific land use regulations which may be considered to meet those objectives.

Because each State has different enabling legislation for land use controls, administrative procedures vary by jurisdiction within each State. However, there are conventional practices that are common among most jurisdictions.

Unless a re-zoning (i.e., a zoning ordinance amendment to change the zoning designation of one or more parcels) is done as part of a jurisdiction-wide comprehensive plan and zoning ordinance amendment, a re-zoning will typically require a formal application by the owner of the parcel to be re-zoned.¹³ In most cases, a series of public hearings before a planning commission and/or governing body (e.g., city council, county board of supervisors) will then follow. It may be important for the site manager and site attorney and/or other agency representatives to participate in these hearings to explain the need for the proposed IC and to answer questions posed by members of the public, planning commissioners, and members of the governing body.

Final approval or denial of the zoning application will generally come from the governing body of the jurisdiction. If the application is denied, the applicant may explore options for mitigation and/or appealing the decision either within the jurisdiction (e.g., with a zoning board of appeals), or in a State or federal court, depending upon the nature of the challenge.

Although zoning ordinances can be useful tools, they have significant limitations as well. For example, zoning is not permanent in nature (i.e., it can be repealed or exceptions granted). Zoning is also not fully effective unless it is routinely monitored and enforced over the long term. However, local governments may not have the resources necessary for such oversight. The site manager and site attorney may consider using written agreements to fund the implementation of ICs, although resources from the CERCLA Fund may not be used for routine monitoring, including the processing of permit applications for projects at sites where there is an IC in place (see discussion below). However, funding agreements with responsible parties may provide resources to the local government for implementation, routine monitoring and/or to provide notice of any changes in zoning or site use. Site managers should also be aware that some zoning ordinances use cumulative zoning, meaning that less intensive uses such as single family homes may be permitted in zones designated for intensive, industrial uses. Therefore, even where the site is located in an industrial zone, an amendment may be needed to prohibit less intensive land uses such as new residential

¹³The site manager and site attorney may negotiate CD, order and/or permit language that requires the property owner to apply for a zoning change, if necessary.

buildings. Finally, some jurisdictions state explicitly what activities are permitted in each district while others identify only what is prohibited. It is important that the site manager understand whether the required restrictions will be adequately addressed using the jurisdictional definitions.

Other Uses of Police Power. In addition to land use controls such as zoning and subdivision ordinances, local governments may exercise their police power to protect the public in other ways. For example, local governments may adopt ordinances that regulate certain activities on hazardous waste sites that could threaten human health or the environment, such as a ban on fishing, swimming, or other potentially inappropriate activities in specified areas. State or local governments could also require anyone seeking a building permit for construction activities in a particular area to be notified of contamination and informed of any relevant management standards. Such measures could be used to prohibit certain types of construction that would result in unacceptable exposures (e.g., excavation in areas where subsurface contamination has not been fully removed). Excavation issues may also be addressed through a State or local government requirement to contact a designated office (e.g., “One-Call” notification systems) before excavating. If a site is in an unincorporated area, one possibility is to work with the county to establish the appropriate ordinances. Although this approach may be somewhat time consuming, it can address areas where there are few other IC mechanisms available.

Use of Cooperative Agreements to Support State and Local Governmental Implementation of ICs at CERCLA Fund-lead Sites.

The site manager and site attorney may consider using cooperative agreements to support the implementation of ICs by State and local governments at CERCLA Fund-lead sites. CERCLA authorizes EPA to enter into cooperative agreements with States and local governments to conduct response actions at hazardous waste sites. A Superfund cooperative agreement is the assistance vehicle that transfers funds for response to States or local governments and documents both EPA and recipient responsibilities for a site. EPA will generally enter into cooperative agreements with only the State lead agency (usually the State’s pollution control agency) as designated by the State’s governor and, less commonly, with local governments. To involve other essential State agencies, the State lead agency typically enters into an intergovernmental agreement with these other agencies. States may also enter into intergovernmental agreements with local governments as an alternative to a direct cooperative agreement between EPA and the local government. It is important to note that EPA does not use the fund to pay directly for IC monitoring or enforcement that is a function of operation and maintenance. Cooperative agreements should not be used to support activities that are considered normal functions of

State or local government. Only specific ICs that impose activities and/or responsibilities on the State or local government should be funded.

Financial Support for State and Local Governments at Responsible Party-lead Sites

Whether a site is a Superfund, Brownfield, Federal Facility, UST or RCRA site, State and local IC responsibilities are true remedy costs that should be incorporated into remedy cost estimates. Site managers are encouraged to work with their State, Tribal and local partners to develop direct reimbursement arrangements for site-specific IC costs from the responsible party. Their involvement helps to ensure that adequate resources will be available in the long term for monitoring and enforcement of ICs outside of an agency's direct control and can significantly increase the reliability of the ICs and overall protectiveness of the remedy.

Implementing Information Devices

Recorded Notices. Unlike proprietary controls, notices contained in deeds or other instruments to be filed in the local land records are not intended to convey an interest in real property. Consequently, such notices do not serve as enforceable restrictions on the future use of the property. As a matter of practice, such notices are contained in deeds conveying real property or an interest therein or some other written instrument that would be examined during a title search on a particular parcel or parcels. This document provides notice to anyone reviewing the chain of title (i.e., lenders, prospective purchasers) that the property either is, or was, contaminated and whether there are resulting restrictions. As a result, where exposure should be limited, a deed or other notice alone generally will not be sufficient to assure protectiveness. Nevertheless, there are benefits from the use of such notices. For example, they may effectively discourage developers from purchasing the property for inappropriate land uses. Deed notices have been commonly used for general notification of site conditions in remedies under RCRA, Brownfields, USTs and CERCLA. For example, the requirements of section 120(h)(3) of CERCLA or the model Remedial Design/Remedial Action (RD/RA) consent decree requirement that any settling defendant owner record a notice to successors-in-title informing future owners of the NPL listing, the ROD, and the consent decree (see "Model RD/RA Consent Decree," May 2001, section v., paragraph 9). Additionally, there are explicit notice requirements for certain situations under RCRA. Specifically, 40 CFR Part 264.119(b)(1) states that for post closure notices, owner/operators of RCRA land disposal units are responsible for submitting a survey plat and making sure that a permanent notation is made on the deed stating that (1) hazardous waste management occurred on the property, (2) its use is restricted under RCRA, and (3) the survey plat

and other applicable information is available at the local zoning authority. These actions must be completed within 60 days of closure certification. Individual State requirements for Brownfields and UST sites vary, so the site manager and site attorney should research the specific requirements within that jurisdiction.

Notices can be somewhat easier to develop and implement than proprietary controls because they do not necessarily require a conveyance to be negotiated. However, such notices should be drafted with care and precision and filed appropriately with the recorder of deeds for the jurisdiction in which the property is located to avoid unintentionally creating rights and/or obligations. For example, the language and recording requirements of some jurisdictions may actually create a property interest. Such notices typically consist of a legal description of the property and a description of the type, location, and concentration of residual contamination and any associated use restrictions. The site attorney may work with an attorney familiar with the recording statutes of the jurisdiction where the site is located to determine the requirements and limitations for recording notices. This should be done well in advance of selecting a notice as part of the remedy. For example, a statute may indicate what documents are recordable, the required contents of a recordable document, and the procedures for their recordation. Also, jurisdictions vary on whether the landowner's approval is required to record a notice. In some jurisdictions third parties can record notices, whereas in other jurisdictions only the landowner can record a notice. Another consideration is that some jurisdictions allow the landowner to remove the deed notice from the chain of title at any time. In jurisdictions that allow the removal of the deed notice by the owner, the enforcement device and/or permit should be clear that the deed notice must remain in the chain of title. Also, a small number of jurisdictions remove deed notices after a specific period of time. In these jurisdictions the enforceable agreement and/or permit should have a re-filing requirement for the deed notice.

State Registries of Hazardous Waste Sites. Certain States maintain registries of hazardous waste sites. Such registries can act as an informational ICs. The registries often include a list of hazardous waste sites in the State; annual reports submitted to the legislature summarizing the status of each site on the registry; requirements for inclusion of a notice in deeds that the site is contaminated; and requirements that any person conveying title to property on the registry disclose to all potential purchasers that the property is on the registry. Some laws provide that the use of property on the registry cannot be substantially changed without the approval of the State. The site manager and site attorney should determine whether such requirements exist early in the remedy evaluation process.

A potential limitation of the use of State registries as ICs is that the procedure for listing and removing them from registries vary by State and are often discretionary. Nevertheless, they can prove useful in combination with other measures as part of an overall remedy for a site, especially in providing information to the public.

Advisories. Advisories are publicly issued warnings that provide notice to potential users of a resource (e.g., land, surface water, or groundwater) of some existing or potential risk associated with that use. For example, an advisory may be issued to owners of private wells in a particular area that contamination has been detected in groundwater at levels that pose a threat to human health. Advisories are generally issued by public health agencies, either at the federal, State, or local level (e.g., the health advisories issued by the U.S. Agency for Toxic Substances and Disease Registry under section 104(i) of CERCLA). The site manager and site attorney should work with State or local government officials to discuss the appropriateness of such advisory services early, and explore options for supporting advisories, such as cooperative agreements. Depending on the situation, certain advisories have a specific threshold that must be met for issuance. Therefore, the site manager and site attorney should coordinate early with the appropriate agencies if an advisory will be a component of the remedy.

Other Considerations for Implementing ICs

Many of the CERCLA considerations previously discussed apply to the establishment of ICs at Brownfield, UST and RCRA corrective action sites as well. However, it is important to note that requirements under these programs are often imposed through legal instruments that are different from those used under CERCLA. For example, there may be no requirements for monitoring such as O&M plans and periodic reviews. Also, States play a key role by imposing ICs under their own authorities as part of their cleanup activities. Consequently, this section offers only general guidelines on possible approaches for implementing ICs.

Establishing ICs through Orders and Permits. In RCRA corrective action cleanups and in developing post-closure care responsibilities, enforceable requirements will generally be established through a permit (e.g., the corrective action portion of an operating permit, or a post-closure permit), or an order under RCRA sections 3008(h) or 7003. RCRA section 7003 allows EPA to require cleanup where there is imminent and substantial endangerment related to either solid or hazardous waste. If there is a solid waste as defined by RCRA section 1004(27), and the other elements have been met, there is no need to show the existence of a hazardous waste. In

addition, RCRA section 7003 does not specifically address hazardous constituents.

The collective experience with ICs demonstrates that no one approach seems to be effective in ensuring the long-term effectiveness of ICs. The current emphasis is to encourage layering of controls to maximize the potential for future landowners, neighbors, and other stakeholders will be aware of and, ideally, prevent future actions that are inconsistent with the selected remedy. Permits and orders alone can serve as ICs by imposing enforceable restrictions on the use of property by the facility owner/operator. Orders and permits can be crafted to require that the owner/operators refrain from selling the land unless the purchaser agrees to (a) abide by the ICs contained in the order and (b) require any future purchasers to do the same. RCRA permits for treatment, storage and disposal have a statutory duration of ten years (renewable only by the facility). The site manager and site attorney may also choose to directly link the IC enforceability to an order to avoid issues associated with permit expiration.

Proprietary Controls. In cases where it is necessary for the restrictions to extend beyond the period of performance for a permit or order, restrictions should be crafted that run with the land and bind future landowners as well as the current owner/operator where feasible given State law requirements. A permit or order may direct the owner/operator to convey such an interest to someone who will then maintain the IC. Model permit and order language does not yet exist under RCRA for this purpose, although several States are developing model language.

Selecting a Grantee Under RCRA. Identifying a party to be the holder of an easement or other interest is an important first step. In contrast to CERCLA, RCRA does not expressly grant EPA authority to acquire property interests in order to conduct cleanups. Therefore, if a proprietary control creates an interest in real estate, EPA may not be the grantee in a RCRA corrective action (unless the cleanup is also being performed pursuant to CERCLA). However, where the cleanup is being done under an authorized State hazardous waste program, the State may have the authority to serve as the grantee.

If neither EPA nor the State can be the grantee, a third party should be designated as the holder of the property interest. If the property in question is being sold, the seller can accomplish the same result by retaining a limited interest while conveying the title to the buyer. If this is being relied on as part of a remedy, however, consideration should be given as to whether the seller will be able and willing to enforce the control after the sale occurs. If the cleanup is being done under an order, the order can require the selling owner/operator to effectively enforce the control; if it is being done under a permit, steps should be taken to ensure

that long-term enforcement is not lost through expiration of the permit. Otherwise, consideration should be given to requiring the owner/operator to transfer the retained interest to a third party (e.g., a land trust or local government).

State and Local Governmental Controls. As discussed previously, State and local governments may impose land use and other government controls at their discretion. EPA has no authority to compel State or local governments to amend or adopt new regulations to impose an IC. Any controls established in this way operate outside the usual RCRA regulatory system. Accordingly, they can only be enforced through local governmental processes.

MONITORING INSTITUTIONAL CONTROLS

The most critical post-implementation aspect to ensuring the long-term effectiveness of ICs is rigorous periodic monitoring. It is essential for the site manager to ensure that there is a process that routinely and critically evaluates the ICs to determine: (1) whether the mechanism remains in place; and (2) whether the ICs are providing the protection required by the remedy. In most situations, it is recommended that monitoring requirements be layered to increase the likelihood that any breaches will be detected early (i.e., by assigning the monitoring responsibility for an IC to more than one party). In addition, the site manager may include frequent reminders of the restrictions such as correspondence, notification in letters for quarterly monitoring, and by affixing warning labels to well casings that reiterate applicable restrictions. Effective and comprehensive monitoring requires early planning and coordination, a clear delineation of roles and responsibilities and detailed reporting requirements. The following sections discuss some of the tools available to the site manager for ensuring appropriate IC monitoring.

Operation and Maintenance. Effective IC monitoring begins with a thorough understanding of the objective and the desired audience for each IC and recognition of the potential weaknesses of each IC. The primary tool for site managers is a detailed O&M plan. Specifically, the O&M plan should describe the required monitoring activities and schedules; the responsibilities for performing each task; the specific reporting requirements; and the process to be followed to address any potential IC issues. The requirements and frequency of IC monitoring may vary depending upon site-specific circumstances, such as the type of mechanisms used and the degree to which an IC is required to provide protectiveness. However, at a minimum, monitoring should include annual inspections and reporting for remedies that rely on ICs. In many cases, inspections and reporting can be incorporated into other site activities such as routine groundwater monitoring and/or annual reports. Annual or semi-annual reminder letters may also be sent to property owners to remind them of their IC

responsibilities. If, after a sufficient period, the reliability of the ICs are better understood, the site manager may revisit the monitoring practices on a site-specific basis. If the site manager anticipates that annual reporting may be changed at some point at the site, they are encouraged to add language to the appropriate enforceable document to define the process for approval of the inspection/reporting change.

To ensure the enforceability of IC monitoring, a requirement for the development of a detailed monitoring and reporting plan, or the requirements themselves, may need to be clearly stated in an appropriate decision document, IC Implementation plan and enforcement document. At a minimum, the IC monitoring and reporting requirements should include submission of an annual written certification by a responsible official at the site that the ICs remain in place and are effective. Also, depending upon the degree that ICs affect protectiveness, actual documentation such as aerial photos and copies of documents from other State and local agencies may be required as annual submissions (i.e., copies of current State Registry, copies of certified records from the recorder of deeds or zoning office). At RCRA sites with a permit or order in place, the IC monitoring and reporting requirements should be specified in a separate document or in the permit and/or order itself. Most Brownfield and UST sites have similar reporting requirements and IC monitoring and reporting should be included in those documents as well.

Periodic Reviews. A second IC monitoring and reporting tool at sites is the periodic review, or in the case of CERCLA, the Five-Year Review. These focused reviews are often required if the chosen remedy leaves waste in place that does not allow for unlimited use and unrestricted exposure at a site. The periodic review provides an important opportunity for a site manager to conduct an objective review of the status and performance of ICs. However, monitoring activities for ICs will generally need to take place more frequently than the five-year interval for CERCLA sites.

During the periodic review, the site manager should inspect the site and critically evaluate the effectiveness of the ICs in protecting human health and the environment and/or protection of the engineered remedy. In addition, the site manager may review the property title to determine whether proprietary controls have been modified or terminated, review the local government's zoning regulations for the site, conduct site visits and/or review aerial photos or other physical documentation to determine whether inappropriate land or resource use is occurring. Also, the enforcement team should understand the review provision in any applicable settlement document and, if appropriate, request that the settling parties investigate the performance of the ICs. If the ICs are not in place at the periodic review, a schedule should be included that indicates when the ICs

expect to be implemented and who is responsible for that activity. If EPA determines that additional ICs are required to protect human health and the environment, the enforcement team should review the review provision and additional work provision of the enforceable document to determine if the settling party may be required to implement additional ICs.

State, Tribal and Local Government Oversight. State, Tribal, and local governments are critical partners in the long-term monitoring and reporting of ICs. Depending on the IC mechanism and site lead, the State, Tribal, or local government may have the direct responsibility for the long-term monitoring and reporting of an IC. The site manager is encouraged to coordinate with these agencies when developing an inspection, monitoring, and reporting approach. Further, the site manager should actively seek a written commitment from the State, Tribal, and/or local governments in monitoring compliance with institutional controls. State, Tribal, and local government monitoring activities may include:

- Inspecting and/or reporting on sites following the issuance of building/excavation permits to ensure compliance with the permit terms;
- Inspecting and/or reporting on sites for compliance with proprietary controls when the State or local government is the grantee; and
- Inspecting and/or reporting on zoning use for compliance with required changes.

Grantee Oversight. In situations where a proprietary control is implemented, the grantee will generally have responsibility for monitoring and reporting on its status. A potential grantee should understand what its responsibilities will be before accepting the conveyance of a proprietary control. For this reason, it is vitally important for the site manager and site attorney to evaluate thoroughly the capability and willingness of a potential grantee to monitor, report and follow up on problems with the IC for as long as it remains in place. In some cases, the grantee may share these responsibilities with contractors (see section below), community stakeholders, local governments, or others who have agreed to contribute to monitoring and/or reporting. Where possible, site attorneys and site managers should develop an enforceable agreement with the grantee to ensure that proper monitoring, reporting and follow up is completed. In situations where EPA is the grantee, the site manager and site attorney should ensure that procedures are in place to appropriately monitor, report and follow up on the site and to transition or terminate those responsibilities once the remedial action is complete.

Out-Sourced Monitoring. In some instances, monitoring and reporting may be out-sourced to an organization or contractor. However, this arrangement does not alter any legal obligations for maintaining the remedy and ensuring its protectiveness. Before selecting this approach, the site

manager and site attorney should ensure that the scope of monitoring activities is clear, an adequate funding source is available for the duration of the period that this method of monitoring is used and that the reporting obligations are clear (i.e., who the contractor reports to?).

Community Monitoring. Local residents and interested organizations can be a valuable resource for day-to-day monitoring of ICs. Since these stakeholders are located near the site, they often have a vested interest in ensuring compliance with the ICs and are generally the first to recognize changes at the site. The site manager should encourage local residents and other interested organizations to become involved in monitoring of ICs. Community monitoring can be fostered through public outreach activities to inform nearby residents of the purpose of the ICs and what types of activities may endanger the remedy. In addition to public meetings and notices, mailings to nearby property owners may be used to provide community stakeholders with information about the IC and contact information for reporting a breach. The site manager is encouraged to assist the community in obtaining funding from the responsible parties and/or grant funding to support community monitoring over the long-term.

Funding for IC Monitoring and Reporting

The availability of resources should be considered when monitoring and reporting plans are developed. State agencies, local governments, and other organizations may require additional funding to meet the monitoring and reporting requirements. This process should begin with the development of a cost estimate for monitoring and reporting activities over the full life-cycle of the IC. The site manager and site attorney may consider several strategies for providing funding, including:

- Developing written agreements;
- Establishing a trust fund;
- Annual billing to the responsible party;
- Requiring the responsible party to set up escrow accounts; and,
- Using settlement proceeds to fund site specific accounts for ICs.

The site attorney and site manager should also ensure that monitoring and reporting costs are contained in the financial assurance requirements section of enforcement documents, as appropriate. Although under CERCLA the Fund may not be used to pay for IC monitoring as part of O&M at a Fund-lead site, there may be situations where ICs are used as part of a long-term remedial action, making them eligible for partial funding over a more extended period.

ENFORCEMENT OF INSTITUTIONAL CONTROLS

The purpose of this section is to provide a general overview of the types of tools available for dealing with potential problems involving improper and/or incomplete implementation, monitoring, reporting or response to breaches of ICs. This section is not intended to provide a comprehensive discussion of enforcement for all situations, but is illustrative of the more common enforcement actions site attorneys may face. Furthermore, under RCRA, Brownfields and UST the State will typically be the implementing, enforcing, and overseeing agency and that State statutes may provide the most effective enforcement instrument. Appendix A provides a summary matrix of some of the typical enforcement activities, the authorities used and the parties responsible for the enforcement.

The preferred and fastest approach for dealing with these types of IC issues is to seek voluntary compliance through early problem identification and informal communication. Many issues can be effectively addressed at the site manager and site attorney level with a phone call. However, there will be occasions when more formal steps are required. Enforcement can occur in several ways depending upon the type of IC mechanism, the authority being used, the party attempting to compel an activity and the party responsible for taking an action. For purposes of this discussion, enforcement will be discussed as: 1) administrative, or 2) judicial. The following discussion focuses on the categories and mechanisms and how they can be enforced.

Enforcement of Governmental Controls

These types of controls are typically completed by a governmental entity other than the one performing the site cleanup. The most common governmental controls used in CERCLA, Brownfields, UST and RCRA remedies are zoning ordinances, excavation/building codes, well construction/abandonment requirements, groundwater regulations, and groundwater management zones.¹⁴ There are several difficulties that can arise when using governmental controls including: 1) the IC device may have not been implemented, 2) the IC may not have been appropriately monitored or reported, and 3) a local government agency may not actively seek a remedy to an identified problem. The challenge for the site attorney in the use of these tools is that implementation, monitoring, reporting and enforcement are activities within the discretion of the local agency. Typically governmental control activities are governed by a defined administrative process. Site attorneys should familiarize themselves with the types of relief offered under these processes, including written petitions and/or administrative hearings. However,

¹⁴ Note: these tools may not be available at certain Federal Facilities.

these processes can be time consuming and may not result in the desired outcome. For this reason, site managers and site attorneys are encouraged to enter into written agreements, based on adequate authority, with the local government before IC implementation that define the roles and responsibilities of local government in enforcing these controls. The types of commitments available will likely vary Federal, State and/or local authority is used.

Enforcement of Proprietary Controls

The most common examples of proprietary controls used in CERCLA, Brownfields, Federal Facility, UST and RCRA cleanups are easements and covenants. These controls, which are based on contract and real property law, present several unique enforcement challenges. One of the key benefits of proprietary controls is that they can be made to “run with the land.” However, because proprietary controls are based on State law, enforcement is conducted in the State court of the jurisdiction where the site is located. For a regulatory agency to have standing to enforce the proprietary control in the State court, they often must be the designated grantee or third party beneficiary. The challenge here is that for CERCLA cleanups, it is EPA’s practice not to be the grantee after the remedial action is complete. So EPA could bring an action in federal court to secure completion of the remedy including the maintenance of proprietary controls that are a part of the remedy. However, after the remedial action is complete, EPA would be unable to remain the grantee and would no longer be able to enforce the proprietary control. In the RCRA, Brownfield and UST context, EPA has no authority to be the grantee, so enforcement through the State court is not available. If a proprietary control is used and another party is the grantee, the regulatory agency may be forced to rely on another entity to act as the enforcer. For this reason, site attorneys are encouraged to enter into agreements, based on adequate authority, that clearly defines the roles and responsibilities of the different parties. In some States real property law allows for “third party beneficiary” enforcement of a proprietary control. In these cases, the regulator may have enforcement rights in State court without being the grantee. The requirements for proprietary controls vary considerably between States. For this reason, the site attorney is encouraged to coordinate with attorneys familiar with a particular jurisdiction for enforcement of proprietary controls.

Enforcement Instruments with IC Components

The most common enforcement instrument used to require restrictions and/or require the implementation, monitoring of an IC, or to seek a remedy for an IC breach, are consent decrees (CD), unilateral orders, consent or voluntary agreements, and permits. Through these instruments, the regulatory agency specifies the restrictions and

requirements for implementing, monitoring, and/or remedying the IC in the enforceable agreement. If the responsible parties fail to carry out their obligations under a CD, order, voluntary agreement or permit, the regulatory agency may enforce the agreement under the appropriate CERCLA, Brownfield, UST or RCRA authority. The remedies available may include specific performance requiring the defendant to implement the IC or maintain certain restrictions, as well as damages in the event that an agency incurs the cost of implementing or maintaining the control, and/or penalties (stipulated and/or statutory).

An action on the CD, order, voluntary agreement or permit will be effective only against the parties specified in these documents. For example, a requirement in a CD or AOC may require a facility operator to secure a proprietary control to prevent a particular type of land use. However, the land owner may not be a party to the agreement and, therefore, would not be obligated to convey the interest. Furthermore, the requirements of the CD may not be enforceable against any successor in title if the successor was not a party to a CD.

If controls are needed on property that is not owned by a facility operator, a responsible party, or owned or controlled by another government agency, the enforcement documents generally require that the party use "best efforts" to obtain a control. "Best efforts" should include preparing and submitting the appropriate forms and fees and payment of fair market value in consideration for the real property interest. If the party uses best efforts but is unable to obtain the restrictions, there are several approaches to consider depending on the situation. First, if the IC cannot be implemented as a result of a bad faith effort by a party, the site attorney could commence enforcement under the CD, order, voluntary agreement or permit to compel the party to comply. The regulatory agency may also elect to condemn a real property interest from a party who is unwilling to convey an interest to which it holds title or may elect to acquire an interest held by a third party if the party to the enforcement document refuses to proceed in good faith. Under CERCLA and many State statutes, the party may be required to reimburse EPA and/or the State for the cost of acquiring the control either through negotiated purchase or condemnation. Alternatively, a party may make a good faith effort, but through no fault of its own be unable to acquire the IC or acquire it in a timely manner. Examples of this situation include the acquisition of an easement from a property owner who is unwilling to sell or, if the property owner is willing to sell, there is an inability to agree on price, or there are title defects which cannot be otherwise cured. In such cases, the site attorney may consider condemning the necessary real property interests or re-evaluate the implementability of the ICs rather than bringing an enforcement action against the party. It may be possible to resolve such a situation by selecting and implementing different ICs, or even by exploring enforcement authorities outside RCRA, Brownfields, UST

or CERCLA (e.g., the Clean Water Act). If other ICs are not viable and the long-term protectiveness of the remedy is threatened, it may be necessary to revisit the remedy.

Informational Devices

The most common informational devices used in UST, Brownfield, Federal Facility, RCRA and CERCLA cleanups are deed notices, State registries and advisories. Deed notices are useful devices, but typically they are not enforceable. However, some States have recently established laws that allow the State to enforce placement of deed notices under State environmental laws. In those States, deed notices are more powerful ICs. Similarly, many States are developing laws that require sites with ICs to be placed on a registry. However, these laws typically only apply in addition to the registry and do not affirmatively limit the resource's use.

Reopening or Modifying the Remedy

Where a failure to establish or maintain ICs calls into question the long-term protectiveness of a remedy, the elements of the remedy may need to be reconsidered. For example, if the remedy requires that residential land uses be prohibited, a property owner's refusal to impose enforceable land use restrictions could jeopardize the protectiveness of the remedy. In such a case, it might be necessary to reconsider the cleanup levels in the decision document or permit to make them consistent with a residential land use scenario. Procedurally, this might require a ROD amendment, an explanation of significant differences (ESD), a State remedy re-opener, or a RCRA permit modification, depending on the significance of the change in the remedy and the type of site.

Reconsidering the remedy would, in most cases, be an alternative of last resort. However, it can be useful to keep the responsible parties aware that this may be the only option if ICs are not properly implemented and/or maintained. It should be made clear to those implementing the remedy that failure to establish or enforce ICs may trigger reconsideration and imposition of additional requirements so that the remedy remains protective. Because the responsible parties could face added costs if IC breaches lead to a need for additional or different response measures, this creates a strong incentive to see that the ICs are implemented and maintained.

Commencement of New Actions

In some cases, it may be necessary to commence an enforcement action against the responsible party. For example, if the remedy relies on governmental controls such as zoning to control land use, a subsequent revision of the local zoning ordinances may compromise the protection afforded by the selected IC. In this example, a UAO could

be used to require that the responsible party use best efforts to acquire real property interests limiting future land use consistent with the zoning restrictions that were repealed.

Site attorneys should also evaluate whether an enforcement action may be brought against a non-settling responsible party that owns property within the site or is otherwise liable and has not settled liability. While a non-settling responsible party is not bound by a consent decree, it may be subject to enforcement actions to implement an IC.

Other Enforcement Cautions

One significant enforcement concern is the premature close out of CDs, orders, voluntary agreements and/or permits with a long-term requirement for ICs. Often, a regulated party is anxious to close out its CD, order, or permit and end their relationship with regulatory agencies through those documents once the construction work to be performed is complete and routine site maintenance has commenced. It is important that the site manager and site attorney retain the appropriate enforcement authority for implementation, monitoring, and enforcement over the duration of the period in which ICs may be needed. In some cases, this means that enforcement instruments may need to be retained in perpetuity. In other situations, such as RCRA permits that have a specific period of performance and long-term requirements for ICs, adequate mechanisms are necessary to ensure the long-term durability, reliability, and effectiveness of the control. In many cases a RCRA order may be required in addition to the permit.

State Tribal and Local Enforcement Roles and Assurances

State and local governments often play an important role in implementing, maintaining, and enforcing ICs. Many governmental controls are established under State and/or local jurisdiction. States and local agencies should be proactive in their maintenance of ICs to keep remedies protective. The site manager and site attorney may choose to secure some form of written commitment, based on adequate authority, from the appropriate State, Tribal, and/or local government regarding their capability and willingness to maintain the ICs. The format for these commitments will likely vary depending upon the available Federal, State and/or local authority.

As mentioned previously, early planning for IC activities and their funding is critical to the long-term durability, reliability, and effectiveness of ICs. When a State or local government will be responsible for maintaining some aspect of an IC, their source of funding for these activities is a particularly important consideration. A lack of funding or institutional capacity may lead to IC breaches and an unprotective remedy.

CONCLUSION

Once an IC has been selected, proper implementation, monitoring, and enforcement is essential to the effectiveness of the IC and the remedy. When implementing ICs, the site manager and site attorney should familiarize themselves with appropriate State regulations and identify the governmental bodies that have jurisdiction over the site. The appropriate implementation tool under CERCLA, RCRA and/or State law should then be selected. If a proprietary control is being implemented, an appropriate grantee should be selected and the language of the conveyance should be carefully drafted. If a governmental control is being implemented, the site manager and site attorney should work closely with the State or local government with jurisdiction to implement the control. A strategy for monitoring ICs should be included in the O&M plan. In addition, the site manager and site attorney should discuss appropriate monitoring roles with the local government and appropriate State agencies. In the event that an IC is not being properly maintained, appropriate enforcement actions should be taken.

For additional information pertaining to the implementation, monitoring and enforcement of ICs, refer to the EPA web page on ICs at www.epa.gov/superfund/action/ic/index.htm. For site specific issues, contact the Office of Emergency and Remedial Response (OERR), the Office of Site Remediation Enforcement (OSRE), the Federal Facility Restoration and Reuse Office (FFRRO), the Office of Brownfields Cleanup and Redevelopment (OBCR), Office of Underground Storage Tanks (OUST) or the Office of Solid Waste (OSW).

Key Points

- ICs are typically utilized when the site cannot support unrestricted use or unlimited exposure.
 - Early planning is essential to the proper implementation, monitoring and enforcement of ICs and should be included as part of the CERCLA RI/FS or EE/CA, RCRA CMS, or similar remedy evaluation and decision documents.
 - Federal property acquisition procedures are resource intensive and subject to significant legal constraints. This should be given proper consideration before designating EPA as the grantee.
 - Coordinate with local government officials early and often. If possible, secure a written agreement from the local government to carry out any necessary activities.
 - Implementation responsibilities vary by IC mechanism and type of enforcement instrument.
 - A number of experts should be involved in the development of IC language, including experts on laws applicable to proprietary controls, where appropriate.
 - The CERCLA Fund should only be used to finance IC implementation costs at Fund-lead sites; it usually is not used to fund the monitoring or enforcement of ICs.
 - Site-specific agreements between responsible parties and local governments should be considered to assist local agencies in financing the implementation, monitoring and enforcement of ICs.
 - IC monitoring and reporting requirements should be included in the O&M plan.
 - Remind property owners of their IC responsibilities on a regularly scheduled basis.
 - Proprietary controls are typically enforced through the contract or real property law of the State, not CERCLA, Brownfields, UST or RCRA authority.
 - CDs, orders, voluntary agreements, and permits are directly enforceable by EPA using familiar CERCLA, Brownfield, UST and RCRA authorities.
 - Do not close out enforceable agreements if there are long-term IC requirements.
-

Appendix A: Enforcement Authorities by IC Type

IC Type	Authorities	Possible Enforcing Organizations and Actions
Governmental Controls	Zoning Groundwater Restrictions	Local jurisdiction; enforcement through administrative process or legal action Typically a State agency; enforcement through administrative process or legal action
Proprietary Controls	Easement or Covenant Third Party Beneficiary Agreements CERCLA/RCRA CD, Order, or Permit	The grantee of a proprietary control may take legal action against any party that engages in activities prohibited by its proprietary control EPA or the State may enforce the proprietary control under State property law if they are a third party beneficiary to the easement or covenant If a responsible party or a liable party is the grantor or grantee of the proprietary control, EPA may utilize these tools to enforce maintenance of the proprietary control
Information Devices	CERCLA/RCRA CD, Order, or Permit	EPA may use these instruments to order a responsible party or liable party to record a notice in the land records
Enforcement and Permit Tools with IC Components	CERCLA/RCRA CD, Order, or Permit	EPA may use a variety of legal instruments to require a responsible party or liable party to control the use of land or resources

Appendix B: Glossary of Terms

Administrative Order on Consent (AOC) - A legal agreement signed by EPA and an individual, business, or other entity through which the party agrees to pay for the correction of violations, take the required corrective or cleanup actions, or refrain from an activity. The AOC describes the actions to be taken (may be subject to a comment period) are civil rather than criminal in nature, and can be enforced in court.

Advisories - Warnings, usually issued by public health agencies, either at the federal, State or local level, that provide notice to potential users of land, surface water, or ground water of some existing or impending risk associated with their use.

Appurtenant - A traditional property law term used to describe an easement or covenant that is created to benefit an adjacent parcel of land (and that is held by the owner of that land). For example, an easement allowing the owner of one parcel the right to cross an adjoining parcel would be appurtenant. (*See also* "In Gross")

Chain of Title - A history of conveyances, judgments and encumbrances affecting title to real estate from the time that the original patent was granted, or as far back as records are available.

Common Law - The body of English law developed primarily from judicial decisions based on custom and precedent, unwritten in statute or code, and constituting the basis of the legal system in all of the U.S. except Louisiana.

Condemnation of Property - The process by which a government agency, exercising the power of eminent domain, acquires an interest in property.

Consent Decree (CD) - A legal document, approved by a judge, that formalizes an agreement reached between EPA and responsible parties through which responsible parties will conduct all or part of a cleanup action at a Superfund site, cease or correct actions or processes that are polluting the environment, or otherwise comply with EPA-initiated enforcement action. The consent decree describes the actions responsible parties will take and is subject to a public comment period.

Conservation Easement - An easement typically conveyed to a land trust or governmental body which limits the use of property in order to conserve and protect its natural resources.

Conveyance - The transfer of title to property or an interest in property (e.g., an easement, from one person to another).

Cooperative Agreement - An agreement that transfers money for the accomplishment of authorized activities or tasks.

Corrective Action - EPA can require RCRA treatment, storage and disposal facilities (TSDF) handling hazardous waste to undertake corrective actions to clean up contamination resulting from failure to follow hazardous waste management procedures or other mistakes.

Corrective Measures Study - A step in the RCRA Subtitle C corrective action process when the owner and operator identifies and evaluates remediation alternatives at a given contaminated site.

Covenant - A promise by one landowner to another made in connection with a conveyance of property (e.g., warranty of title). Covenants may also include a promise by the holder of a possessory interest in property to use or refrain from using the property in a certain manner. Covenants are similar to easements but have been traditionally subject to somewhat different formal requirements.

Deed - A written instrument that transfers legal title to real property or an interest therein from one party to another. Generally, it contains the names of the grantor and grantee, a description of the property, the estate being conveyed, and is signed by the grantor, usually acknowledged before a notary public, and recorded.

Deed Notice - Commonly refers to a non-enforceable, purely informational provision or other instrument in a deed that alerts anyone performing a title search to important information about a particular property.

Deed Restriction - Not a traditional property law term, but rather is used in the NCP as a shorthand way to refer to various types of proprietary controls.

Easement - A right which allows the holder to use the property of another or restrict its use according to the terms of the easement. An "affirmative" easement allows the holder to enter upon or use another's property for a particular purpose (e.g., ingress/egress). A "negative" easement imposes limits on how the owner of the servient estate can use the property.

Enforcement Tools - Tools, such as administrative orders or consent decrees, available to EPA under CERCLA and RCRA that can be used to restrict the use of land. Enforcement authority can be used to either (1) prohibit a party from using land in certain ways or from carrying out certain activities at a specified property, or (2) require a settling party to put in place some other form of control, such as a proprietary control.

Five-Year Review - An evaluation required under section 121(c) of CERCLA. Under section 300.430(f)(4)(ii) of the NCP a review is conducted at all Superfund sites where the remedy does not allow for unlimited use and unrestricted exposure. Five-year reviews determine whether the remedy at a site remains protective of human health and the

environment and identify deficiencies and make recommendations to correct these deficiencies. Where remedial actions are still under construction, five-year reviews confirm that immediate threats have been addressed and that the remedy is expected to be protective when all remedial actions are completed.

Governmental Controls - Controls using the regulatory authority of a governmental entity to impose restrictions on citizens or sites under its jurisdiction. Generally, EPA must turn to State, local or Tribal governments to enforce existing controls of this type and to establish new controls. Typical examples of governmental controls include zoning, the issuance of building permits, and State and local groundwater use restrictions.

Grantee/Grantor - The entity to/from which ownership of a proprietary interest (e.g., an easement) is transferred.

Information Devices - Institutional control mechanisms that provide information or notification that residual or capped contamination may remain on site. Common examples include State registries of contaminated properties, deed notices, and advisories.

In Gross - A traditional property law term used to describe easements that provide a benefit not related to any property owned by the holder of the easement. Easements used under CERCLA and RCRA will generally be “in gross” because the restrictions are generally not for the benefit of any particular neighboring parcel owned by the holder of the easement.

Institutional Controls - Non-engineering measures intended to affect human activities in such a way as to prevent or reduce exposure to hazardous substances. They are almost always used in conjunction with, or as a supplement to, other measures such as waste treatment or containment. There are four categories of institutional controls: governmental controls; proprietary controls; enforcement and permit tools with IC components; and information devices.

Local Permits - A document issued by a local government agency authorizing certain acts to be performed, e.g., construction of a building, and intended to ensure compliance with the laws and regulations of the jurisdiction.

Memorandum of Understanding (MOU) - A document that outlines an agreement in principle between its signatories.

Overlay Zone - A set of zoning regulations that supplement (i.e., overlay) those of the underlying district. Developments within the overlay zone must conform to the requirements of both zones, or the more restrictive of the two. Overlay zones may be used to address issues such as historical areas, flood plains, and environmental contamination.

Proprietary Controls - These controls are based on real property law and use a variety of tools to prohibit certain

activities that may interfere with the engineering remedy applied at a site or restrict activities or future uses of a resource that may result in unacceptable risk to human health or the environment. The most common examples of proprietary controls are easements and covenants.

Prospective Purchaser Agreement - An agreement between EPA and the prospective purchaser of a property known to be contaminated. Under the agreement, EPA typically provides the purchaser with a covenant not to sue for the contamination existing at the site as of the date of the agreement. In return, the purchaser usually provides EPA with a benefit which may include cleanup work, funding, and/or benefits to the community. Such agreements are generally only entered into at sites where an EPA action has been, is currently being, or will be taken. Parties seeking to operate on or lease contaminated property may also be eligible for such an agreement.

RCRA Facility Investigation - Site characterization used to ascertain the nature and extent of contamination of releases identified during a Subtitle C RCRA facility assessment or the Phase I RCRA facility investigation.

“Run With the Land” - An expression indicating a proprietary control binds subsequent purchasers of the affected parcel as opposed to one which is personal and binds only the original parties.

State Use Restrictions - Statutes enacted by some States providing authority to establish use restrictions specifically for contaminated property.

State Registries of Hazardous Waste Sites - Registries established by States that contain information about contaminated properties.

Subdivision Ordinance - A local ordinance that regulates the conversion of land into building lots for development. The regulations establish requirements for streets, utilities, site design, and procedures for dedicating land for open space or other public purposes to the local government, or fees in lieu of dedication. In short, subdivision ordinances regulate land conversion, whereas zoning ordinances regulate land use.

Superfund State Contract (SSC) - An agreement between EPA and a State generally before remedial action begins at Superfund sites where EPA is leading the response activities. The SSC documents the State’s assurances under CERCLA and outlines the roles and responsibilities of both parties.

Tailored Ordinances - Ordinances enacted by local governments to control access to or the use of certain areas. For example, ordinances that require fences or buffers around or that ban fishing or swimming in contaminated areas.

Technical Assistance Grant - A EPA grant awarded to eligible community groups for the purpose of hiring an independent technical advisor, enabling community members to participate more effectively in the decision-making process at Superfund sites.

Unilateral Administrative Order (UAO) - A legal document signed by EPA directing a responsible party to take corrective action or refrain from an activity. It describes the violations and actions to be taken, and can be enforced in court.

Waiver of Claims - A provision in a document signed by a landowner in which the landowner voluntarily gives up any right to compensation for any diminution in value of, or damages to, the landowner's property due to cleanup actions on the property.

Zoning - A widely used type of land use control that is based upon police power. Zoning ordinances consist of a map indicating the various land use zones (or districts) in the jurisdiction, and text that sets forth regulations for the development of land by zone.

DRAFT