



Institutional Controls

Chemical Commodities, Inc. Superfund Site

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The purpose of this guide is to discuss the specific institutional controls selected for the Chemical Commodities, Inc. (CCI) Superfund site in Olathe, Kansas, as well as provide general information about the role of *institutional controls* in Superfund cleanups. This guide discusses the community's role in providing input for the selection of institutional controls, and helping to monitor them to ensure that human health and the environment remain protected in the future.

Terms that appear in **bold** can be found in a glossary at the end of this document. Many of these terms describe different types of institutional controls.

Institutional controls for the CCI Superfund site

The institutional controls selected and implemented for the CCI Superfund site include:

1. A city ordinance preventing the installation of new water wells within 500 feet of the site and provisions for closing existing wells.
2. Restrictive covenants (deed restrictions) on the property.
3. Rezoning of the property to Planned Residential, with a designation as open space.

1. Water wells in contaminated areas.

Olathe Municipal Code Title 13 - 13.32.105

- A. From and after the date of the ordinance codified in this section, no new water well shall be constructed and used for personal use if the health officer determines that such well is in a contaminated area or within five hundred (500) feet of a contaminated area.
- B. Any existing water well shall cease to be used for personal use if the health officer determines that (1) the well is in a contaminated area or is within 500 feet

of a contaminated area, (2) public water is available to the water well user, and (3) the cessation of use of the water well for personal use is in the best interest of public health, safety and welfare.

2. Restrictive covenants.

In September 2006, the Olathe City Council approved Restrictive Covenants for the CCI property. These are summarized below.

- Unless approved in writing by the EPA, the property cannot be used for residential, commercial, or industrial purposes.
- Unless approved in writing by the EPA, there shall be no disturbance of the surface or subsurface of the property by filling, drilling, excavating, removal of topsoil, rock, or materials, or change of topography in any manner.
- The property will not be used for livestock grazing, production of food-chain crops intended for human consumption, including but not limited to tobacco, leafy vegetables, or root crops, or for the production of food-chain crops intended for use as animal feed.
- No drinking water wells shall be installed, used, maintained, or renewed on the property.

The restrictive covenants run with the land and apply to the current and any future property owner. Both the city and the EPA are able to enforce these restrictions.

3. Rezoning.

Rezoning of the property to Planned Residential, with a designation as open space is intended to keep the property from being used for any other purpose. A future property owner could apply to the city to have the property rezoned for another use. But, such an application would most likely be refused due to the property history and deed restrictions.

Key points about institutional controls

- Legal and administrative tools used to maintain protection of human health and the environment.
- Designed to lower the potential for people and other organisms in the environment to be exposed to contamination.
- Often an important part of the overall cleanup at a site.
- Used for many reasons such as restricting site use, modifying behavior, and providing information to people.
- Four general types of institutional controls: governmental, proprietary, enforcement, and informational.
- Communities can play a role monitoring implementation of institutional controls.

What are institutional controls?

Institutional controls are generally administrative and legal tools that do not involve construction or physically changing the site. Institutional controls are generally divided into four categories:

Government controls – include local laws and permits such as county zoning, building permits, and master plans.

Proprietary controls – property-use restrictions based on private property law such as **easements** and **covenants**.

Enforcement Tools – documents that require individuals or companies to conduct or prohibit specific actions such as environmental cleanup **consent decrees**, **unilateral orders**, or permits.

Informational devices – Used to convey information but not legally enforceable such as **deed notices**, public advisories, and educational activities that alert and educate people about a site.

All institutional controls have strengths and weaknesses that need consideration in each situation to determine the best ones to use. Use of institutional controls is not a way to avoid treatment of contamination, but rather part of an overall site cleanup plan that relies on both engineered and non-engineered actions to reduce risk of harmful exposures to contaminants.

All institutional controls have strengths and weaknesses.

When are institutional controls used?

Institutional controls are normally used when some waste is left on site and when there is a limit to safe activities that can take place at the site. In other words, the site cannot support unlimited use and unrestricted exposure. Institutional controls may also be used when cleanup equipment remains on site. Institutional controls are often used throughout a site cleanup, including

- when contamination is first discovered to protect people from coming in contact with potentially harmful materials while the contamination is being investigated;
- during active cleanup work (in some cases, it may take many years to complete cleanup); and
- when some amount of contamination remains on site after the active phase of cleanup.

Community input can be essential for selecting, using, and monitoring institutional controls that are a good fit for the community and protect the site remedy.

Institutional controls can play an important role during cleanup and when it is too difficult or too costly to remove all contamination from a site. Institutional controls are rarely used alone to deal with contamination. Typically, institutional controls are part of a larger cleanup solution and serve as a non-engineered layer of protection. Institutional controls are designed to keep people from using the site in a way that is not safe and/or to prevent damage to cleanup equipment that may jeopardize protection of people and the environment.

Why can't all the contamination be removed?

Removing all traces of contamination from a site is often not possible or practicable because of the type and location of contamination. The presence of some residual contamination does not mean that a site can't be used safely. Use of a site with residual contamination is considered safe if exposure to contamination is prevented. Institutional controls can help safe reuse of a site. A common example of site reuse is when a surface barrier layer is installed over contaminated soil and the area is used for athletic fields, a golf course, or a park. Although the barrier layer is an engineered control, rules put in place to prevent disturbance of the barrier layer would be institutional controls. As long as the barrier layer is not disturbed, then exposure to contamination can be prevented.

Are institutional controls reliable?

All institutional controls have strengths and weaknesses. One key challenge is that institutional controls are often implemented, monitored, and enforced by various levels of federal, state, tribal, or local governments. Therefore, it is critical to make sure there are enough institutional control safeguards and overlaps so no significant risk to human health or the environment, or damage to the remedy, occur.

Layering institutional controls means using more than one institutional control at the same time, all with the same goal. For example, a consent decree, deed notice, and covenant can be used together to stop use of drinking water wells. Institutional controls may be used in series when different institutional controls will be most effective as site circumstances or institutional control processes change. For example, restrictions can gradually be reduced as progress is made toward cleanup goals. When used in overlapping ways, institutional controls can be more reliable to provide an important measure of safety.

Who is responsible for making sure institutional controls work as intended?

Responsibility for making sure institutional controls work depends largely on the type of institutional control and who is conducting the cleanup. Overlapping responsibilities sometimes make it difficult to identify the person or organization responsible for institutional control. For example, zoning is often the responsibility of a local zoning board; easements are based on state law; and permits or orders can occur at the federal, state, tribal, and local levels. It is also common for several entities to have some overlapping responsibility for an institutional control. For example, an agency that approves a cleanup frequently has some responsibility for making sure the institutional controls work. However, actual implementation steps may be completed by the party responsible for cleanup and/or another agency such as the local zoning board.

Regardless of who is responsible, institutional controls should be regularly monitored to make sure all requirements are still in place and the institutional controls continue to work effectively. Because federal, state, and tribal government officials are not always located in the neighborhood of the site, local governments and community members can contribute to ensure institutional controls work properly. One way to improve use of institutional controls is to clearly define roles and responsibilities early in the process of choosing the institutional controls.

Will institutional controls hinder reuse of the site?

In many ways, institutional controls can help return a site to a safe and productive use. Institutional controls can identify possible uses for a site, and communicate use limitations to present and future users. For example, a site may be fit for industrial use but not for residential development. To determine appropriate types of institutional controls, it is important to make sure the preferred future land use is taken into account. It is important to recognize institutional controls can affect future development at a site. Communities should be involved early in communicating with appropriate decision makers about the types of land use they think will be best for their community.

How and when can the community get involved?

Community input can be essential for selecting, using, and monitoring institutional controls that are a good fit for the community and protect the site remedy. Regulatory agencies, parties responsible for cleanup investigations, and other stakeholders should develop a working relationship with the community early in the cleanup process. Mutual respect, trust, and timely open communication can enhance the ability of all involved to ensure that the most effective institutional controls are chosen and implemented at the site.

The community can participate during master planning meetings, zoning hearings, and land-use planning meetings. The community can also be involved in the site investigation and remedy-selection process. Local residents can participate as individuals or as part of an organized community group.

Citizens can get involved by asking questions about institutional controls at a cleanup site.

The community also can be of great benefit in assisting with monitoring institutional controls. Individual residents and business owners are the eyes and ears of a community. They are often the first to notice uses or excavation activity that may be inconsistent with the site's land-use restrictions and future use. Cleanup parties should work with the community to establish an effective and user-friendly system for reporting and monitoring information about the site and institutional controls. For example, EPA is pilot testing a one-call type system to provide information about institutional controls at cleanup sites. One-call systems have been used effectively by utilities before any excavation is done on a property to insure the utilities and workers are not damaged or injured.

Citizens can get involved by asking the following questions about institutional controls at a cleanup site:

- What specific institutional controls are used at the site?
- Where are the institutional controls recorded and described for easy reference?
- How are the institutional controls legally recorded?
- Who is responsible for implementation and enforcement of institutional controls at this site?
- Who can I contact if I need information, have a concern, or want to report something?
- How long will the institutional controls be in place at this site?
- How will institutional controls be monitored to insure their proper implementation?

Conclusion

Institutional controls discussed in this guide can be essential components of environmental cleanups. It is important for citizens to understand institutional controls and have the opportunity to take an active role in their selection, use, and monitoring. Because institutional controls are often in place long after physical cleanup is finished, community knowledge and input can be important for assuring they remain protective of human health and the environment. Working relationships among governments, stakeholders, and communities are vital ingredients for successful cleanups and land reuse, especially the institutional control components.

For Additional Information

For additional information about ICs, refer to the EPA Web page at <http://www.epa.gov/superfund/action/ic/index.htm>.

Adapted from EPA document, Institutional Controls: A Citizen's Guide to Understanding Institutional Controls at Superfund, Brownfields, Federal Facilities, Underground Storage Tank, and Resource Conservation and Recovery Act Cleanups. <http://www.epa.gov/superfund/action/ic/guide/citguide.pdf>

Glossary

Consent decree • Legal document approved by a judge that formalizes an agreement reached between EPA and companies, governments, or individuals associated with contamination (potentially responsible parties or PRPs) at the sites through which PRPs will take certain actions to resolve the contamination at a Superfund site.

Covenant • Agreement between a land owner and others that can be used to establish an institutional control or use restriction on a property that remains in place when ownership transfers to another party.

Deed notice • Non-enforceable, informational document filed in land records to alert the public about important information pertaining to a land parcel.

Easement • Property right conveyed by the land owner to another party, giving the second party certain rights to the land.

Enforcement tools • Types of institutional controls that include orders compelling a party to limit certain site activities as well as ensure the performance of affirmative obligations (e.g., consent decree, RCRA permit, unilateral administrative order).

Governmental controls • Types of institutional controls that impose land or resource restrictions using the authority of an existing unit of government (e.g., state legislation, local ordinance, well drilling permit, etc.).

Informational devices • Type of institutional controls that provide information or notification to the public of contamination remaining in place.

Institutional controls • Non-engineered instruments, such as administrative and/or legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land and/or resource use (e.g., easement, fish advisory, local permit).

Proprietary control • Type of legal instrument that has its basis in real property law and is unique in that it generally creates legal property interests placed in the chain of title of a site property (e.g., easement, restrictive covenant).

Unilateral administrative order • Legal document signed by EPA directing a responsible party to take corrective action or refrain from an activity; it may describe the violations and actions to be taken and can be enforced in court.

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