

Applicability of Direct Exposure Soil Cleanup Target Levels

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Soil Cleanup Target Levels, Chapter 62-777, F.A.C.

- Direct Exposure (DE) – residential/commercial & industrial (protection of human health)
- Leachability – back calculated from groundwater and surface water CTLs (protection of ground and surface water)
- SRCO without conditions if soils meet residential direct exposure SCTLs and leachability SCTLs
- SRCO with conditions if soils do not meet residential direct exposure SCTLs and Leachability SCTLs.

Site Closure with Conditions

Site Closure with Conditions Guidance, November 1, 2013

- Expanded the forms of acceptable institutional controls beyond deed restrictions, restrictive covenants, and conservation easements
- Includes governmental controls that impose restrictions on land use or resource use, such as:
 - County or municipal ordinances prohibiting installation of potable wells
 - Prohibition on installation of wells in potable wellhead protection areas under Chapter 62-521, F.A.C.
 - Development orders
- A restrictive covenant is not required where the governmental control restricts access to the contaminated media

Application of Direct Exposure SCTLs

Supplemental Guidance for Application of Direct Exposure SCTLs, December 18, 2014

- Remediation or a control (engineering and/or institutional) is required when soil in the top two feet exceeds DE SCTLs, due to the higher likelihood of contact with soil at those shallow depths
- DE SCTLs should not apply to soils below two feet, provided institutional controls or other methods are used to prevent human exposure (e.g., a restrictive covenant, a development order)

Supplemental Guidance (cont.)

- Exceedances of DE SCTLs below the top two feet
 - Restrictive covenant not required as long as another institutional control or other method is used to prevent direct human exposure (e.g., development order or deed notice)
 - SRCO with conditions (SRCOC) should document the site conditions that remain at closure
- Exceedances of DE SCTLs below 12 feet of the land surface
 - Control is not needed
 - However, extent of contamination remaining included in the SRCOC
 - Site also listed in DEP's Institutional Controls Registry

Rationale and Assumptions

- Most potential exposures for a resident are limited to the top two feet of contaminated soil
- The risk of exposure to contaminants in soil decreases with increasing depth
- Closure criteria for deeper soils at a site to reflect the reduced risk and potential frequency of exposure
- Excavation deeper than two feet usually limited to utility workers or construction workers and exposure is short in duration
- Risks in these scenarios can be eliminated by routine implementation of health and safety plans and adequate notification
- Assumes that all soil is returned to the excavation at depth and not re-used as surface soil.

Examples

Exceedances of residential DE SCTLs the top two feet, but below commercial & industrial DE SCTLs

- SRCOC may be issued if an institutional control used to restrict use of property to commercial/industrial use
- Restrictive covenant or development order is implemented to ensure that the property will remain in commercial/industrial use. Zoning alone not usually sufficient. Need something to ensure any excavated soil is managed appropriately.
- What if concentrations increase at depth above commercial/industrial? Additional controls or action may be necessary

Examples

Exceedances of commercial industrial DE SCTLs in top two feet

- SRCOC may also be appropriate, provided the contaminated soil is under a cap such as a paved asphalt parking lot or a concrete pad and there is a restrictive covenant to maintain the engineering control
- Notification to construction workers that soil contamination exists to limit worker exposure and appropriate management of soil

Examples

Exceedances of residential DE SCTLs between two to twelve feet

- SRCOC appropriate if an institutional control or other suitable method is used to prevent human exposure (e.g., a deed notice)
- Deed notice to provide information regarding soil conditions and require appropriate management of soils (e.g., returned to depths below two feet or properly disposed).
- SRCOC must include information regarding soil conditions and site listed on DEP's Institutional Controls Registry

Examples

Exceedances below twelve feet

- Restrictive covenant not required
- SRCOC appropriate and will include information regarding soil conditions
- Site listed on DEP's Institutional Controls Registry

Questions?

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