# Considerations for Managing Contaminated Soils in Iowa

## Frequently Asked Questions

During remediation and construction, soil is often managed by the developer, property owner, or contractor. The soil may be regulated by the Resource Conservation and Recovery Act (RCRA) hazardous waste regulations. If the movement of soil could result in water pollution or air pollution, there may be an obligation to comply with either federal or State of Iowa regulations intended to minimize such environmental impacts. Federal regulations, 40 CFR part 262.11, states a person who generates a solid waste, as defined in 40 CFR part 261.2, must determine if that waste is a hazardous waste. The contained-in policy is intended to clarify the application of the Resource Conservation and Recovery Act (RCRA) hazardous waste regulations to environmental media, such as soil.
*epa.gov/osw/hazard/correctiveaction/resources/guidance/remwaste/refrnces/12cntdin.pdf*

The State of Iowa does not currently administer the Federal Resource Conservation and Recovery Act (RCRA) subtitle C (hazardous waste) program. This program is managed by the United States Environmental Protection Agency (EPA) Region VII, located in Lenexa, Kansas. (800-223-0425).

### WHEN DO I NEED TO TEST THE SOIL?

Soil is often contaminated to some degree. It is the responsibility of the waste generator to determine whether the soil should be managed as a waste. First, determine if it is reasonably likely that a release has occurred in the area at some point in time. This may involve researching past activities at the site to identify what contaminants may have been released and where. If there may have been a release, the soil should be tested for the suspect contaminant (e.g., hazardous substance, petroleum contamination, Polychlorinated Biphenyls – PCBs.)

If soil reuse is planned (e.g., levee, construction site), and no historic information is found, nor visible site or smell of contamination, the soil may be reused either onsite or off site. Any generator reusing soil that may cause a hazardous condition may be liable for cleanup and restitution.

### Definition: Hazardous condition

IAC chapter 131 - "Hazardous condition" means any situation involving the actual, imminent or probable spillage, leakage, or release of a hazardous substance onto the land, into the water of the state or into the atmosphere which, because of quantity, strength and toxicity of the hazardous substance, its mobility in the environment and its persistence, creates an immediate or potential danger to the public health or safety or to the environment.

### WHEN IS CONTAMINATED SOIL CONSIDERED A "GENERATED WASTE?"

Contaminated soil is considered a "generated waste" for RCRA purposes, when it's excavated and placed in containers, treated *ex-situ*, or removed from the Area of Contamination (AOC). EPA has stated that Land Disposal Restrictions (LDR, 40 CFR part 268) treatment standards do not apply to soils left in place, nor do they force contaminated soil to be excavated. If the contaminated soil is re-graded or consolidated within an AOC, the contaminated soil would not be considered generated, and the LDR requirements do not apply, even if the soil has been excavated within the AOC. Contaminated soil should also be managed as a solid waste if any regulatory authority (e.g., federal, state, or local) requires that the soil be removed or specially managed because the contaminants pose a risk or potential risk to human health, safety or the

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environment. Mandatory cleanup may be under federal corrective action, state LRP program or field office directive.

The next step is to determine if the contaminated soil is a hazardous waste under RCRA (See 40 CFR part 261). If it is determined to be a hazardous waste, it must be managed in accordance with federal hazardous waste requirements. RCRA can regulate environmental media (e.g., soil and groundwater) via the contained-in policy.

Environmental media that contain hazardous wastes must be managed as such until the media no longer contains the waste.

- Media does not contain a characteristic waste when the media no longer exhibits a characteristic. (40 CFR part 261, subpart C)

- Determination that media no longer contains a listed waste is made by EPA Region VII.

The Federal LDR program is designed to ensure that wastes are properly treated prior to land disposal by immobilizing the harmful constituents or reducing the waste toxicity or by destroying or removing the harmful constituents. The LDR requirements stipulate treatment standards that apply to all hazardous wastes and also provide for optional alternative treatment for some specific wastes. EPA has published an extensive summary of the LDR requirements in a guidance document available online at: *epa.gov/osw/hazard/tsd/ldr/ldr-sum.pdf*

### WHAT ABOUT UTILITY WORK?

Soil may be excavated during work such as trenching operations for utility installation. These soils may be hazardous by characteristic, or may contain listed hazardous wastes. Often times, these activities are being conducted in public right-of-ways or at other similar locations. Soil from excavation or construction activities temporarily moved within an AOC, and subsequently re-deposited into the same excavation area, does not constitute treatment, storage, or disposal of a hazardous waste under RCRA (40 CFR part 260.10). Thus, LDRs would not apply. If the re-deposited soil were to create a

hazardous condition, State of Iowa regulations may require cleanup of the contaminated soil. Also, other state program areas may have specific requirements for the replacement of soils back in a trench. Contact the appropriate program areas for any specific requirements that may apply.

## Resources

These resources can be found online at *www.iowadnr.gov*

- Cumulative Risk Calculator – The cumulative risk calculator can assess risk to potentially exposed parties, based on three standard exposure scenarios, from multiple contaminants and multiple media (i.e., groundwater, soil and air).
- Statewide Standards – Standards prescribed in the DNR's Land Recycling Program which represent concentrations of contaminants in groundwater and soil for which normal, unrestricted exposure is considered unlikely to pose a threat to human health.
- Iowa Tier I look-up table for petroleum contaminated soils. *legis.iowa.gov/docs/ACO/chapter/567.135.pdf*

Federal Resources:

- The Area of Contamination (AOC) policy discusses using the concept of "placement" to determine which requirements might apply within an AOC. *epa.gov/osw/hazard/correctiveaction/resources/guidance/remwaste/refrnces/01aoc.pdf*