INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT	STATUS: Effective	POLICY NUMBER: *Waste 0075-NPD*	
AGENCY NONRULE POLICY DOCUMENT **SUBJECT:** Institutional Controls Soil Management Plan for Restricted Soils Soil Management Plan	**AUTHORIZED:** Brian Rockensuess, Commissioner		
	SUPERSEDES: New	**ISSUING OFFICE(S):** Office of Land Quality, Remediation Services Branch	
	ORIGINALLY EFFECTIVE: December 9, 2022	**RENEWED/REVISED:** *NA*	

Disclaimer: *This nonrule policy document (NPD) is being established by the Indiana Department of Environmental Management (IDEM) consistent with its authority under IC 13-14-1-11.5. It is intended solely to provide guidance and shall be used in conjunction with applicable rules or laws. It does not replace applicable rules and laws, and if it conflicts with these rules or laws, the rules or laws shall control. Pursuant to IC 13-14-1-11.5, this policy will be available for public inspection for at least 45 days prior to presentation to the appropriate State Environmental Board and may be put into effect by IDEM 30 days afterward. If the nonrule policy is presented to more than one board, it will be effective 30 days after presentation to the last. IDEM also will submit the policy to the Indiana Register for publication.*

1.0 PURPOSE

This document provides guidance for soil management plan (SMP) development for most projects participating in Indiana Department of Environmental Management's (IDEM's) Office of Land Quality (OLQ) remediation programs with an Environmental Restrictive Covenant (ERC) containing soil excavation restrictions. This document can also be referenced for projects conducting soil excavation activities unrelated to ERCs.

2.0 SCOPE

This nonrule policy document (NPD) applies to soils with concentrations of human-induced chemicals or contaminants exceeding the site-specific remediation objectives based on the published levels or established background levels in the Risk-based Closure Guide (RCG) and the proper management and handling in accordance with all applicable state and federal laws.

This NPD applies to the following IDEM OLQ programs: Brownfields, Petroleum Remediation Section, Hazardous Waste (RCRA), State Cleanup Section, and Voluntary Remediation Program.

3.0 SUMMARY

The SMP NPD provides guidance and a reporting outline for addressing soil disturbed, excavated, or re-located after closure of the property with an ERC that contains a construction worker restriction(s) and/or obligations involving excavation of soil. This NPD also provides guidance and a reporting outline for proposed soil disturbance, excavation, or re-location.

IDEM's risk-based NPDs address and drive the reduction of risk to exposure from release related chemicals in media containing chemicals of concern. NPDs include IDEM's Risk-based Closure Guide (RCG) and the Remediation Program Guide (RPG). Published levels found in the RCG may be used to determine whether soil contains chemicals at concentrations possibly presenting a threat to human health.

4.0 DEFINITIONS

4.1. "Agency" – The Indiana Department of Environmental Management (IDEM).

4.2. “Applicant” is the person or entity that conducts a remediation or takes corrective action at a property with oversight from the Voluntary Remediation Program (VRP).

4.3. "Authorized Agent” – a person who is legally authorized to act on the behalf of another person, for purposes of this NPD, the Responsible Party or property owner.

4.4. “Closure” – IDEM’s written recognition of a party demonstrating attainment of remediation objectives in an area. The written instrument for this decision varies by remedial program. The Remediation Program Guide, 2012 and its subsequent versions, contain templates of the instruments utilized in the applicable program.

4.5. “Contamination” – chemicals present at a concentration that exceeds chemical’s remediation objective or established background level

4.6. “Environment” – The complex of physical, chemical, and biologic factors including land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other similar natural resources, belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by, the state as defined in IC 13-11-2-137.

4.7. "Free Product” – means a substance that is present as a nonaqueous phase liquid that is in excess of the material’s solubility limit.

4.8. “Nonrule policy” – The term assigned by IDEM to policies identified in IC 13-14-1-11.5 as any policy which: A. Interprets, supplements, or implements a statute or rule; B. Has not been adopted in compliance with IC 4-22-2; C. Is not intended by IDEM to have the effect of law; and D. Does not apply solely to the internal IDEM organization, an administrative policy.

4.9. “Off-Site” – For purposes of this NPD, off-site refers to property that is not owned by the owner of the source of the contamination.

4.10. “On-site” – For purposes of this NPD, the term "on-site" refers to the parcel(s) that are the source of the contamination.

4.11. “Operator” for purposes of IC 13-23 et seq. regarding releases from underground storage tanks, has the meaning set forth in IC 13-11-148(d)

4.12. “Owner” for purposes of IC 13-23 et seq., regarding releases from underground storage tanks has the meaning set for in IC 13-11-2-150

4.13. “Owner or operator” – for purposes of IC 13-24 et seq. regarding releases from petroleum facilities, has the meaning set forth in IC 13-11-2-151.

4.14. “Published Level” – A concentration published by IDEM for a chemical in particular medium which is acceptable for a specified exposure scenario.

4.15. “Receptor” – A human or ecological entity exposed to a stressor.

4.16. “Release” – Has the meaning set forth in IC 13-11-2-184(a) and/or (b).

4.17. “Responsible party (RP)” – (1) The individual, company, group, or other entity legally responsible for areas where chemicals of concern are known to have been released, or legally responsible for compliance under state or federal environmental regulations. (2) The entity or party required to perform, or which voluntarily performs an investigation and/or remedial action or corrective action at a site, and who will, in most cases, prepare the Record of Remedy Selection and Record of Site Closure

4.18. “Responsible Person” is defined for purposes of IC 13-24 under IC 13-11-2-192(a)

4.19. “Responsible Person” is defined, for purposes of the state cleanup laws at IC 13-25-4, under IC 13-11-2-192(b)

4.20. “Sensitive Population” – A human or ecological entity that cannot tolerate chemical exposure as well as other, these include pregnant and nursing women, children, older adults, etc.

4.21. “Site” - The geographical area where an evaluation of potential environmental contaminants is desired. This may consist of an entire facility and surrounding property or a single area of

concern within a facility or property, depending upon the applicable regulatory program. For purposes of IC 13-25-5, site means a parcel of real property for which an application has been submitted under IC 13-25-5-2.

4.22. "Waters" – Has the meaning set forth in IC 13-11-2-265.

5.0 ROLES

5.1 The consultant shall (when engaged by the Responsible Party):

- Represent the responsible party.
- Prepare work plans or other documents for a site on behalf of a responsible party.
- Coordinate activities with the IDEM OLQ project manager.
- Submit plans, data, and documents as requested by the IDEM project manager.
- Perform activities as described in the approved work plans or other documents.

5.2 The IDEM OLQ project manager shall:

- Prepare correspondence to the Responsible Party and Consultant communicating the status of the remediation project.
- Conduct internal team meetings with technical staff to discuss the effectiveness of the Soil Management Plan.
- Conduct meetings with the Responsible Party or the Consultant to discuss approaches to soil management.
- Ensure all pertinent documents are correctly loaded into the Virtual File Cabinet (VFC) for storage.

5.3 The Responsible Party shall:

- When implementing soil management activities, ensure that the requirements of the Soil Management Plan are being adhered to by authorized agents, employees, contractors, representatives, agents, lessees, licensees, invitees, guests, or persons acting under their direction or control.
- Respond to the IDEM OLQ project manager in a timely manner to all requests for information.
- Provide data, maps, or records to the IDEM OLQ project manager reflecting site conditions.

6.0 POLICY

The requirements for a site specific SMP are based on the highest level of soil contamination compared to IDEM's Risk-based Closure Guide (RCG).

Level 1 - Soil containing free product

Level 2 - Soil containing chemicals at concentrations greater than Published Levels for Excavation Worker Direct Contact (PLEXDCs) and not containing free product

Level 3 - Soil containing chemicals at concentrations less than PLEXDCs but greater than Published Levels for Industrial Direct Contact (PLIDCs)

Level 4 - Soil containing chemicals at concentrations less than PLIDC but greater than Published Levels for Residential Direct Contact (PLRDC)

Sites with Level 1 or Level 2 soils require submission of an SMP for IDEM review and approval as part of the site's closure requirements. Specifically, a construction worker restriction area. The SMP and all revisions shall be incorporated into the site's ERC by VFC reference number.

An IDEM approved SMP may also be required for active sites where Level 1 or Level 2 soils may be disturbed, excavated, or relocated.

Sites with Level 3 or Level 4 soils may require an IDEM approved SMP for planned construction activities if soil levels exceed the current or proposed land use (i.e., soils exceed

Commercial/Industrial or Residential Direct Contact Published Levels at a residential setting or Industrial Direct Contact Published Levels at a commercial/setting).

Soils that meet IDEM's Uncontaminated Soil Policy (April 2015, WASTE-0064-NPD) do not require an SMP.

In accordance with 40 CFR 261.3, any excavated soil containing a chemical identified as a listed hazardous waste must be treated as a hazardous waste. Persons who remove soil that is characterized as a hazardous waste after excavation must comply with all applicable hazardous waste laws and rules or must obtain a determination from IDEM stating that the Contained-In policy is applicable (*See* Waste Policy 0061-NPD Contained-in Determination Policy). Complete hazardous waste determinations must be made to determine proper disposal of all soil excavated from the property as either hazardous waste, solid waste, or unregulated.

A. Site Description and Summary of Conditions

1. Site Description and Background

   Provide a general overview of the site. The background section includes information on the site location; history, including previous buildings which may prohibit sampling; current land use; surrounding land use; physical setting, including soil types; and past investigations and remedies listed chronologically and briefly summarized. Appendix A will contain a map depicting the entirety of the site and surrounding land use. Even though all sites require a map of the entire site, the SMP map may only apply to a defined affected area.

2. Scope of Work

   - For Level 1 and Level 2 soils, a SMP submitted as part of a site closure, leave this section blank.
   - For Level 1 or Level 2 soil soils discovered during a site investigation, submit the scope of work to IDEM 30 days before construction activities occur for IDEM's review and approval from the assigned program project manager at their discretion.

For Level 3 and Level 4 soils, provide information related to the development and proposed activity at the site. Include information on where the proposed activity will occur when construction plans become available, depth of excavation, etc. submit 30 days prior to activities occurrence to allow IDEM staff the opportunity to be present.

3. Site Characterization

   Identify the areas and contaminants of concern on the site. Provide a map depicting the extent, location, and depth of the contamination (Appendix B) and a table detailing the contaminants, depicted in Appendix B, compared against RCG published levels (Appendix C).

B. Soil Management Activities

Soil management activities define the policies and procedures for preventing public access to a site during soil handling activities and managing and disposing of soils containing chemicals of concern during excavation or construction activities. The highest level of on-site soil contamination, found in Table 1, determines the soil management plan requirements.

1. Soil Handling and Disposal Activities

   a. Stockpile Management
      Place soil segregation and stockpiling on an impermeable surface (i.e., plastic sheeting) away from site drainage patterns or lines, roadsides, or culverts, then cover with material adequate to prevent soil transport by wind or rainwater runoff. Maintain covers in good condition. When not covered, keep soil stockpile surfaces visibly moist by water spray, as necessary, to prevent fugitive dust. Adequate containment of Level 1 soil stockpiles is required so free product will not be released to other uncontaminated areas. Level 1 soil that has been excavated and is being transported for disposal at an appropriate waste disposal facility, must be contained in a way to prevent a new release (i.e. in a lined roll off dumpster). Other stockpile options can be discussed with IDEM for consideration and approval.

b. On-Site Transportation
Handle soils containing chemicals of concern transported within site boundaries to minimize the spread of contamination. Dedicate equipment and vehicles, to moving excavated Level 1 soil and Level 2 soil for the duration of the project. Line transport trucks when moving Level 1 soil to prevent leakage/a new release. Appropriately decontaminate equipment which handled contaminated soil, prior to transporting clean soils with the same equipment. Waste tracking manifests are not required for transportation of soils within the site. However, the responsible party must document and maintain records of work conducted, including the final on-site locations of soils which have been re-located on site, and provide copies of these records to IDEM (upon request or if required as part of an approved plan). Allowable use of Level 2, 3, or 4 soil for backfill into the excavation does not require a Legitimate Use Approval if the soil is returned to the same vertical area from which it was taken.

c. Off-Site Soil Disposal
Either directly load Level 1 and Level 2 soil into awaiting transport trucks or place in secure roll-off boxes pending off-site disposal at a permitted Subtitle C hazardous waste or Subtitle D solid waste landfill in accordance with, 329 IAC 3.1 (40 CFR 268 Subtitle C) or 329 IAC 10 (40 CFR 268 Subtitle D), respectively. For Level 1 soil, line the transport truck with impermeable material. Transport and dispose of soil removed from the site in accordance with applicable federal, state, and local rules and regulations. The party responsible for soil disposal activities is responsible for keeping the wheels and exterior portions of the trucks free of excess dirt and debris before the truck exits the property. Waste manifests are generally only required for classified hazardous wastes. However, any Level 3 or 4 soils transported off-site for disposal must comply with applicable laws including 329 IAC 3.1 and 329 IAC 10. IDEM's Compliance Branch maintains a list of permitted solid waste facilities.

C. Contamination Containment

Best management practices are essential to preventing the spread of contamination off-site or to additional areas on-site. IDEM's OLQ requires continuous dust control during soil movement activities with soil identified at Level 1, 2, 3 or 4 and within ¼ mile of a residential setting to include schools, playgrounds, etc.).

1. Fugitive Dust Control

At a minimum, consideration for dust suppression controls should include:

- Reduction of on-site vehicle speeds
- Minimizing drop heights to material haulers from soil loaders
- Timing excavation activities and considering the prevalent wind direction and speed
- Odor suppressants
- Regular watering or application of dust suppressants to haul roads and soil stockpiles
- Covering or tarping soil stockpiles when not in use
- Revegetating, stabilizing, or covering exposed excavations and as soon as practicable
- Use of completely enclosed vehicles or tarping vehicles

Additional information about control measures and what can be included in a plan for controlling fugitive dust can be found in 326 IAC 6-5-4, Control measures and 326 IAC 6-5-5 Contents of control plans http://www.in.gov/legislative/iac/T03260/A00060.PDF. The site and remediation activities shall comply with the requirements of 326 IAC 6-5-4, Fugitive Dust Emissions at all times.

2. Equipment Decontamination Plan
Discuss how equipment used in areas where contaminated soil is present is decontaminated. Decontamination of equipment includes at a minimum:

- Brushes, shovels, etc., to conduct gross soil removal on equipment used for excavation or movement of soil at the site.
- Prior to leaving the site, cleaning and decontaminating of all trucks and equipment.
- Brushing off loose soil on excavation and transport equipment and transferring to a truck containing Level 1, 2 3, or 4 for transport to the designated landfill.

D. Field Screening

Discuss field screening to conduct during soil excavation activities. The discussion needs to include documentation of daily instrument calibration and strict adherence to the manufacturer's instructions for operation and maintenance. In addition, maintain instrument calibration records and provide to IDEM upon request.

E. Legitimate Use

Legitimate use, as defined by IC 13-11-2-118.4, is the reuse of a material, otherwise defined as a solid or hazardous waste (i.e., contaminated soil). Level 3, or 4 soils may be approved for legitimate use. IDEM will not approve the use of Level 1 or Level 2 soils for legitimate use because the soils contain free product and/or contamination above excavation worker published levels. For approval of soil for legitimate use, the property owner, or an authorized agent of the property owner, must obtain the commissioner's approval in accordance with 329 IAC 10-3-1(16). To inquire about a legitimate use, contact the OLQ Compliance Branch. Two basic requirements for a legitimate use approval are:

- The use is legitimate.
- The use does not pose a threat to public health or the environment.

F. Final Restoration

Cap exposed Level 1, Level 2, or Level 3 soils per Supplemental Guidance on Engineered Exposure Controls Document, Engineering Control: Covers (See Waste-0074-NPD *Supplemental Guidance on Engineered Exposure Controls*). Exposed Level 4 soils do not require capping unless the soil is being used in a residential setting or other sensitive area (i.e., daycare, school, etc.). IDEM review and approval for the proposed cap is required before implementation.

G. Contingency Plan

A contingency plan is required in case unforeseen contaminated soil is encountered during excavation, digging, or other soil disturbing activities. A contingency plan is not a substitute for a thorough understanding of soil contaminants and extent of contamination. The contingency plan should include at a minimum the following actions in case unforeseen impacts to soil or groundwater are discovered during the excavation work:

- Stopping all excavation activity in the vicinity of where suspect material is encountered.
- Notifying IDEM.
- Cordoning off the area, as much as practicable, with a suitable barrier.
- Appropriately managing suspect contaminated soils.
- Anticipated soil disposal requirements.

H. Record Keeping

1. Imported Soil Verification

   When contaminated soil removal requires backfill verify the use of "clean fill" with the assigned IDEM project manager as certain backfill may qualify as a disposal of solid waste i.e., soils must meet residential RCG published levels when used in a residential setting. All imported soil brought on site must adhere to IDEM's Uncontaminated Soil Policy. Approval for use of imported soil that does not meet IDEM's definition of "uncontaminated" can be considered by the assigned program project manager in cooperation with IDEM's Industrial Waste Compliance Section and may require a legitimate use approval. For more information on the Uncontaminated Soil Policy, contact IDEM's Industrial Waste Compliance Section.

I. Appendices

1. Site Map

   Appendix A will include a black and white 8.5" x 11" or 11" x 17", nonaerial map of the entire site and surrounding land use, and geological cross section.

2. Soil Restriction Area(s)

   Appendix B will include a black and white 8.5" x 11" or 11" x 17", nonaerial map of the site with a depiction and designated areas with soil impacts. Clearly define Level 1, 2, 3, and 4 soil areas. If the site has different levels of contamination, discretely mark each level of soil.

3. Soil Table(s)

   Appendix C will include the following table template to provide information on the remaining contamination left on site depicted on the map in Appendix B.

Table 1
Site Name
Address
Soil Analytical Results

Sample Identification	**Depth of Sample**	**Sample Date**	**Detected Constituent and Result** ***(in milligrams/kilogram (mg/kg))***		
			Constituent	Constituent	Constituent
PLRDC					
PLIDC					
PLEXDC					

PLRDC – Published Levels for Residential Direct Contact
PLIDC – Published Levels for Industrial Direct Contact
PLEXDC – Published Levels for Excavation Worker Direct Contact

J. Additional Guidance

Although the SMP focuses on the management and reuse of contaminated soil, direction for addressing groundwater encountered is included for reference.

1. Water Management

   Any accumulated rain or groundwater requires on-site retention (i.e., fractionation vessel, vacuum truck) or treatment (e.g., granular activated carbon vessels). Store groundwater or water pumped from excavations and properly dispose in accordance with the requirements of the off-site disposal facility or the appropriate National Pollution Discharge Elimination System permit. Dispose the water in accordance with all applicable federal, state, and local rules and regulations.

2. Storm Water and Erosion Control

   Follow the performance-based Construction Site Run-off general permit requirements that apply to activities associated with construction and land-disturbing activities under 327 IAC 15-5. Prior to initiation of site work, develop a Storm Water and Erosion Control Plan in compliance with applicable federal, state, and local regulations (e.g., National Pollutant Discharge Elimination System permitting; EPA's "Do I Need a Permit?" Flowchart; INDOT Indiana Design Manual 2013 Chapter 205 Temporary Erosion and Sediment Control; and EPA's Storm Water Phase II Final Rule Construction Site Runoff Control Minimum Control Measures (December 2005)).

3. Worker Protection Guidance

   IDEM's authority does not extend to worker protection. Therefore, IDEM refers questions about worker protection to the Occupational Safety and Health Administration or Indiana Occupational Safety and Health Administration. For information regarding worker protection requirements, contact the Indiana Department of Labor. A free on-site consultation regarding worksite safety can be scheduled.

7.0 REFERENCES

7.1. Federal Laws or Rules:

A. 40 CFR 261.3

B. 40 CFR 268 Subtitle C

C. 40 CFR 268 Subtitle D

D. EPA's Storm Water Phase II Final Rule Construction Site Runoff Control Minimum Control Measures (December 2005)

E. EPA's "Do I Need a Permit?" Flowchart

7.2. Indiana Statutes:

A. IC 4-22-2

B. IC 13-11-2-118.4

C. IC 13-11-2-137

D. IC 13-11-148(d)

E. IC 13-11-2-150

F. IC 13-11-2-151

G. IC 13-11-2-184

H. IC 13-11-2-192(a) or (b)

I. IC 13-11-2-265

J. IC 13-14-1-11.5

K. IC 13-23 et seq.

L. IC 13-24

M. IC 13-25-4

N. IC 13-25-5-2

O. IC 13-25-5-7

P. IC 13-25-5-11

Q. IC 25-39-2-10.

7.3. Indiana Administrative Codes:

A. 329 IAC 3.1-13-8

B. 329 IAC 3.1-13-9

C. 329 IAC 3.1-13-10

D. 329 IAC 3.1-13-11

E. 329 IAC 3.1-13-12

F. 329 IAC 3.1-13-13

G. 329 IAC 7.1-2-11

H. 329 IAC 9-5-8

I. 326 IAC 6-4

J. 326 IAC 6-5

K. 329 IAC 10

L. 329 IAC 10-3-1(16)

M. 327 IAC 15-5

7.4 Indiana Department of Environmental Management Nonrule Policy Documents and Guides

A. Waste-0049

B. Waste-0061

C. Waste-0065

D. Waste-0074

E. Risk-based Closure Guide

F. Remediation Program Guide

7.5. Indiana Department of Transportation:

A. INDOT Indiana Design Manual 2013 Chapter 205 Temporary Erosion and Sediment Control

8.0 SIGNATURES

Brian C. Rockensuess, Commissioner
Indiana Department of Environmental Management

10-24-22
Date

Peggy Dorsey, Assistant Commissioner
Office of Land Quality

10-12-22
Date

Nancy King, Assistant Commissioner
Office of Legal Counsel

10/20/22
Date

This policy is consistent with Agency requirements.

Quality Assurance Program, Planning and Assessment
Indiana Department of Environmental Management

24 Oct 2022
Date