

Contaminated Media Reuse in Virginia

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Contaminated Media Hierarchy

- Appropriate reuse of contaminated media within the actual excavation project.
- Appropriate reuse of the contaminated media on the site of the development as allowed under 9 VAC 20-81-95.C.7.d.
- Reuse of the contaminated media on the site of generation or at another site with comparable contaminants (through the use of this variance).
- Thermal or biological remediation of the contaminated media followed by reuse - using a DEQ permitted thermal or biological treatment facility.
- Landfill burial – burial in a permitted sanitary, industrial, or hazardous waste landfill authorized by DEQ (or other states) to receive this material

Contaminated Media Guidance Development

- Developed Contained In-Contained Out Policy for Hazardous Waste
- Created 3 Tiers of Re-use
- Utilized EPA Risk Screening Levels and Voluntary Remediation Screening Numbers
- Developed Framework for Self-Implementation
- Created Additional Criteria
- Published State-wide
- Conducted Stakeholder Meetings

General Requirements/Provisions

- General Requirements/Restrictions:
 - Only for use of media generated in Virginia
 - Must have adequate sampling and analytical techniques
 - Fill material must be suitable for vegetation or supplemented
 - No placement in waterways
 - Comply with local requirements and E&S BMP
 - Use of Notification Form & Approval from Property Owner
 - DEQ will not provide technical approval
 - If above identified levels, individual approval required

Appendix A: Property Notification

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APPENDIX A

Contaminated Media Use Form

I, the Generator, certify that the fill material described in the following "Fill Description" has been determined to meet the following Tier classification (circle all that apply):

Table 1—Sensitive Ecosystems/Groundwater Resource

Table 2—Residential

Table 3—Commercial/Industrial

FILL DESCRIPTION

Address of media origination:

Facility Name:

Facility Owner (Name and Phone number):

General description of contaminant origin including brief list of contaminants of concern (Attach analytical list of contaminants):

Specific location of media to be excavated (attach as Figures 1 and 2):

Quantity of media to be excavated and reused:

Contaminated Media: Tier-Approach

- 3 Tables:
 - Table 1: Sensitive Environments
 - Table 2: Residential
 - Table 3: Industrial
- May Have to Use More than one Table
- Can Use Background at Receiving Site in Lieu of Tables - must be statistically valid background determination

Table 1: Sensitive Environment

- Use where sensitive environment for ecological receptors or groundwater resource
- Sensitive Environment for ecological receptors is “an area in which the primary function of the land is to support natural habitat with limited human intervention
- Examples:
 - Areas that support rare, threatened, or endangered species,
 - 25 year flood plains
 - Surface Water



Table 1 Cont.

- Groundwater Resource: “area in which groundwater is currently used or is reasonably anticipated to be used as a potable source.”
- May use Local Ordinance
- May be used on same or adjacent property
- May require other Permits, example Land Disturbance
- Restrictions:
 - 200 ft. separation to any well, spring, or surface water used as a drinking water source
 - 50 ft. separation to cave, sinkhole, or karst features

Table 1 Example

| Table 1 Protection of Groundwater and Ecological Receptors | | Beneficial Fill Ecological Screening Level mg/kg | Beneficial Fill Groundwater Protection Screening Level SSL (soil to groundwater) DAF 10 mg/kg |
|---|-----------|---|--|
| | CAS No. | | |
| TAL Inorganics | | | |
| Aluminum | 7429-90-5 | pH dependent | 5.55E+04 |
| Antimony | 7440-36-0 | 0.27 | 2.71E+00 |
| Arsenic | 7440-38-2 | 18 | 2.91E+00 |
| Barium | 7440-39-3 | 330 | 8.22E+02 |
| Beryllium | 7440-41-7 | 21 | 3.16E+01 |
| Cadmium | 7440-43-9 | 0.36 | 3.76E+00 |

Table 2: Residential

- Use Residential Table 2
- Includes Residential Housing, Schools, Day Care, Parks, Playgrounds, and long term health care facilities.
- Does not include hotels and motels
- If contaminant is not present on table, use EPA's Regional Screening Level.



Table 2 Example

| Table 2 (a) | | Screening |
|--|-----------|-----------|
| Soil: Residential and Other High Frequency Receptors | | Level (b) |
| | CAS No. | mg/kg |
| TAL Inorganics | | |
| Aluminum | 7429-90-5 | 7.70E+03 |
| Antimony | 7440-36-0 | 3.10E+00 |
| Arsenic | 7440-38-2 | 3.90E-01 |
| Barium | 7440-39-3 | 1.50E+03 |
| Beryllium | 7440-41-7 | 1.60E+01 |

Table 3: Industrial

- Use Table 3
- Area restricted to Commercial/Industrial
- If contaminant is not present on table, use EPA's Regional Screening Level.
- Must record Deed Restriction on Property
- 50 ft. separation to any off-property residence, health care facility, school, recreational park, day care or similar institution

Appendix B:

Deed Restriction

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APPENDIX B

SAMPLE-DECLARATION OF RESTRICTIVE COVENANTS

This Declaration of Restrictive Covenants made as of this ____ day of [month, year], by [owner], owner of the fee simple title to the property hereinafter described, GRANTOR, and by [add names of trustees if any], Trustee, as follows:

ALL THAT certain tract, piece or parcel of land containing a total [amount of acres] acres, lying and being in the City of [name of city], Virginia, and [metes and bounds description of property and/or plat attached].

WHEREAS, [owner] is the fee simple owner of the said property (see deed recorded in Deed Book [Deed Book number], page [page number]); and

[[If the property is subject to a Deed of Trust:]

WHEREAS, this property is subject to a Deed of Trust of record at Deed Book __, Page __, to _____ and _____, Trustees, to secure a note in the amount of _____ made to _____. The Trustee joins this Declaration to the end that the Deed of Trust shall be subordinate to this Declaration and its terms; and

WHEREAS, in consideration of certain allowances made by the Director of the Virginia Department of Environmental Quality [and consideration offered by Generator, if different], the Grantor has agreed to establish certain irrevocable restrictive covenants limiting the use of certain portions of said property in order to protect human health and the environment;

NOW THEREFORE, for the consideration referred to above, the receipt and legal sufficiency of which is hereby acknowledged by the undersigned, and in order to protect human health and the environment, the undersigned do hereby irrevocably, dedicate, declare and impose the following restrictive covenants to run with the land on the above described property as follows:

The property shall not be used for residential purposes or for children's (under the age of 16) daycare facilities, schools or playground purposes (although hotels and motels are not prohibited.)

This Declaration of Restrictive Covenants may be modified or released only with the consent of the Director of the Department of Environmental Quality, upon a showing of changed circumstances sufficient to justify the change.

Given under my hand and seal at [name of city], Virginia, on the ____ day of [month, year].

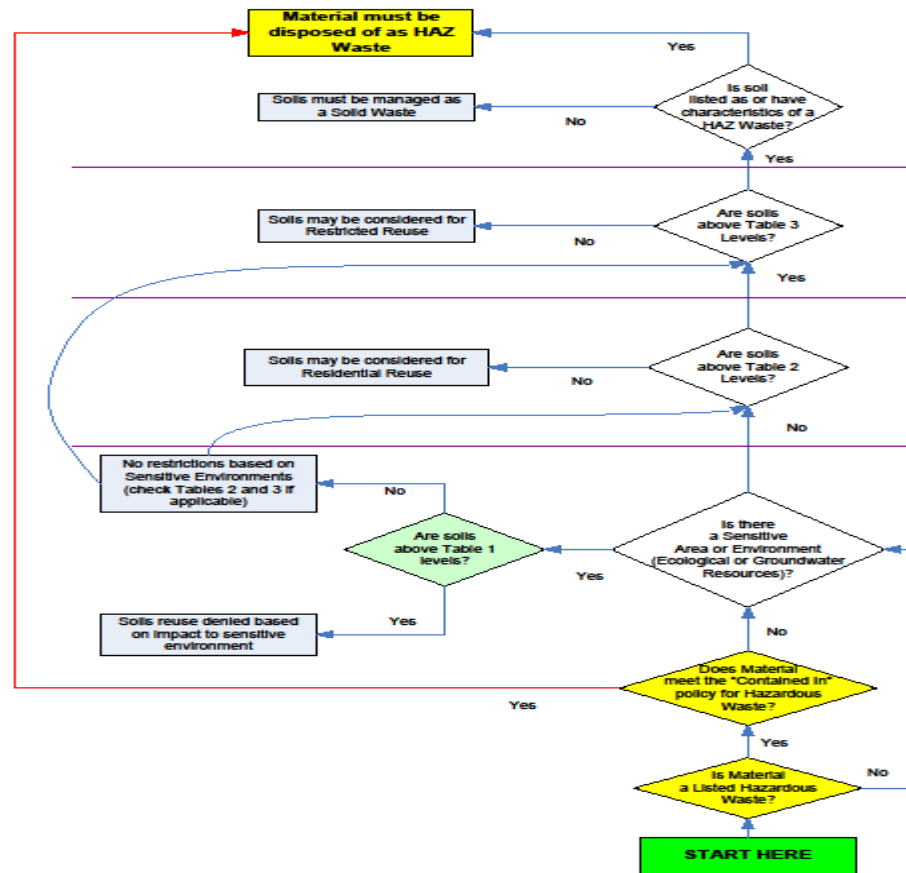
[Name of Owner/Corporation]
By: [Name]

Table 3 Example

| Table 3 (a) | | Screening Level (b) * |
|--|-----------|-----------------------|
| Soil: Restricted (Commercial/Industrial) | CAS No. | mg/kg |
| TAL Inorganics | | |
| Aluminum | 7429-90-5 | 9.90E+04 |
| Antimony | 7440-36-0 | 4.10E+01 |
| Arsenic | 7440-38-2 | 1.60E+00 |
| Barium | 7440-39-3 | 1.90E+04 |
| Beryllium | 7440-41-7 | 2.00E+02 |

Contaminated Media: Putting It All Together

Hierarchy for Contaminated Soils



Questions?

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