

## **IDW Waste and Contained In/Contained Out Determinations**



- Investigative Derived Waste
- Contained In/Contained Out Determination

- Drill mud, cuttings, purge water (environmental media)
- PPE and other contaminated equipment
- Solutions to decontaminate equipment & PPE

- All waste generated from investigation or remedial activities must be managed properly



- Place in closed containers
- Label the container “Hazardous Waste – Pending Analysis”
- Do not exceed applicable accumulation time limits

- Make a proper waste determination
- Submit waste profile to dispose of waste in a landfill

- EPA's contained-in policy states that environmental media contaminated with hazardous waste must be managed as if they were hazardous until they no longer contain the listed waste, no longer exhibit the characteristic or are delisted



# Contained-In Policy

Contaminated environmental media no longer contains hazardous wastes when:

- The environmental media does not exhibit a *characteristic* of hazardous waste
- Concentrations of hazardous constituents from *listed* hazardous wastes are below health-based levels

- A formal *contained-out determination* from the Department is required to remove the listing from environmental media contaminated with a ***listed*** hazardous waste



# Contained-In/Contained-Out Determination

To obtain a contained-out determination:

- Submit a formal request to the Department
- The Department will make a formal determination
- The determination only applies to the media specified in the formal request
- Allow 30 days for review by the Department



# Contained-Out Determination Request

Formal Request must include:

- Site location/history/maps
- What listed code applies to media
- Specific amount of waste generated
- Analytical for all constituents listed for specific code in ADEM Admin. Code 335-14-2 Appendix VII
- Disposal plans for waste

- Universal Treatment Standards
  - (40CFR 268.48)
- EPA Regional Screening Levels table
  - <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016>
- Landfill options/POTW discharge

- Formal letter
- Specific waste code
- Specific amount of waste

- Proper waste determination must be made
- Form 300 must be completed for landfill disposal of soils

- Facility operates a dry cleaner using trichloroethylene (TCE) and tetrachloroethylene (PCE)
- F002 waste code applies
- Assume all samples for each well are collected together in a container
- Proposed disposal of the excavated soil is a MSW Landfill



# Case Study

<b>COC</b>	<b>MW-1</b>	<b>MW-2</b>	<b>MW-3</b>	<b>MW-4</b>	<b>MW-5</b>
Tetrachloroethylene	0.06	1.00	2.00	0.70	0.05
Methylene chloride	1.00	2.01	2.05	3.04	1.20
Trichloroethylene	0.50	0.04	1.00	0.05	0.04
1,1,1,-trichloroethane	2.00	0.15	0.04	2.01	5.04
1,1,2-trichloroethane	0.01	0.04	0.02	0.40	0.04
Chlorobenzene	1.00	2.04	0.04	0.45	2.50
1,1,2-trichlor-1,2,2-trifluoroethane,	0.13	0.14	0.05	0.45	0.14
Ortho-dichlorobenzene	1.00	4.00	2.01	1.23	2.31
Trichlorofluoromethane	0.15	2.01	0.30	0.46	1.01



# Case Study

<b>COC</b>	<b>UTS Value (mg/kg)</b>	<b>RSL Value (mg/kg)</b>
Tetrachloroethylene	6.0	39
Methylene chloride	30	320
Trichloroethylene	6.0	1.9
1,1,1,-trichloroethane	6.0	3,600
1,1,2-trichloroethane	6.0	0.63
Chlorobenzene	6.0	130
1,1,2-trichlor-1,2,2-trifluoroethane,	30	17,000
Ortho-dichlorobenzene	6.0	930
Trichlorofluoromethane	30	35,000

- Does the soil meet the required limits?
- Does the soil contain out?
- What are my next steps?
  - Make a complete waste determination
  - Submit waste profile
  - Once Certification Letter received, waste may be disposed in landfill

- IDW
  - Place in properly labeled closed containers
  - Know storage limits
  - Make proper waste determination
  - Dispose accordingly
- Contained-in/Contained/Out Determination
  - Make formal request w/analytical
  - Receive approval/denial from Department
  - If deemed to no longer contain listed HW proceed with disposal procedure



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