ASTSWMO Joint HW & MM Training
Oklahoma City, OK

Materials Management Session II:
Construction and Demolition (C&D) Debris Disposal
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C&D Waste Landfills in the Bluegrass State
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Overview

- Kentucky’s construction/demolition debris (CDD) landfills accept non-hazardous construction and demolition debris waste
- this presentation will provide a brief summary of Kentucky’s requirements for CDD (C&D) landfills pertaining to
  - permitting
  - liners
  - wastes
  - groundwater
  - cover
  - financial assurance
  - post-closure
  - corrective action
Permit

Is a permit required?
• permit for greater-than-one-acre
• registered permit-by-rule for less-than-one-acre

If so, what is your permit term?
• five years for greater-than-one-acre
• permit for less-than-one-acre is valid for life of the facility (as long as it has a “good bond” on it)

Do you require some other form of licensure instead?
• no
Liner

Is a liner required?
• yes

If not, under what circumstances?
• not for inert beneficial use
• not for less-than-one-acres unless proposed to be located in a wellhead protection area
Waste

What types of wastes do you allow to be buried?

• greater-than-one-acre
  • solid waste from construction, remodeling, repair and demolition of structures and roads
  • uncontaminated solid waste consisting of vegetation resulting from land clearing and grubbing, utility line maintenance and seasonal and storm-related cleanup
  • such waste includes, but is not limited to
    • bricks, shredded or segmented tires, concrete and other masonry materials, soil, rock, wood, wall coverings, plaster, drywall,
Waste – continued

plumbing fixtures, tree stumps, limbs, saw dust, leaves, yard waste, paper, paper products, metals, furniture, insulation, roofing shingles, asphaltic pavement, glass, plastics that are not sealed in a manner that conceals other wastes, electrical wiring and components containing no liquids or hazardous metals that are incidental to any of the above and other inert waste as approved by the Cabinet

• asbestos-containing materials may be accepted only if the permit application includes procedures approved by the Cabinet to handle these materials
Waste – continued

• less-than-one-acre C&D landfills are more limited in what they may accept
  • construction materials means nonhazardous non-soluble material, including but not limited to steel, concrete, brick, asphalt roofing material, or lumber from a construction or demolition project; mixture of C&D debris with any amount of other types of waste may cause it to be classified as other than construction materials
Waste – continued

What types of waste are specifically prohibited?

• C&D landfills shall not be for disposal of garbage, electrical fixtures containing hazardous liquids such as fluorescent light ballasts or transformers, PCB-containing waste, hazardous material spill residues, limited quantity generator hazardous waste, any waste regulated by 401 KAR Chapter 31 and 32, whole tires, liquids, drums, fuel tanks, or other non-permitted waste; the technical requirements for C&D landfills are found in 401 KAR 48:050 and 401 KAR 48:060

• less-than-one-acres
  • no friable asbestos, shredded tires, furniture

Are waste restrictions hard coded in a statute or rule or do you use some less formal method like a guideline?

• statutes and regulations
**Groundwater**

Do you require groundwater monitoring?
- for greater-than-one-acre C&D landfills

If so, do you require statistical evaluations of the data and reporting?
- yes
How often do you require routine and intermediate cover?

- C&D waste shall be spread and compacted in thin layers sufficient to minimize void spaces during placement of lifts
- no lift shall be greater than eight (8) feet in depth or the depth approved in the application
- owner or operator shall apply a twelve (12) inch soil cover such that the area of exposed waste does not exceed 10,000 square feet in area and all exposed wastes shall be covered at least once each week
- less-than-one-acre
  - not based on time, rather, compact every two feet and 6 inches of soil every ten feet
What are your final cover requirements?

- depends on whether putrescible waste was accepted
  - if so, waste cells shall be graded to achieve a final slope of more than five (5) percent and less than twenty-five (25) percent
  - the twelve (12) inch cover layer shall be overlain by a minimum of twelve (12) inches of a 1 x 10^{-7} centimeters per second maximum permeability cap or its equivalent
  - the cap shall be covered by a six (6) inch drainage layer of 1 x 10^{-3} centimeters per second permeability material or its equivalent on slopes less than fifteen (15) percent
  - a system of field drainage tiles shall be provided to relieve water collected by the drainage layer
Cover – continued

• the drainage layer shall be protected with an overlaying filter fabric or material approved by the Cabinet
• a minimum of three (3) feet of vegetative soil shall cover the drainage layer
• diversion berms shall be provided where surface run-off exceeds the capability of the final cover to sustain the flow without excessive erosion
• if permit applicant restricts the waste to be C&D debris, non-putrescible wastes and wastes that shall not leach such that the environmental performance standards shall be exceeded, the design may be modified as follows
  • liner shall be a minimum of two (2) feet of soil re-compacted to ninety (90) percent of standard proctor
  • final cover shall be a minimum of three (3) feet of vegetative soil
• less-than-one-acre
  • two feet of clean soil for final cap
Financial Assurance

Do you require financial assurance?
• yes

Post-Closure

Do you have a minimum post-closure period?
• yes

If so, how long is it?
• two years, unless contamination is detected
• less-than-one-acre
• once 90 percent vegetative cover is achieved, financial assurance is released and permit is terminated
Corrective Action

Do you have provisions for corrective action in your rule?

• yes
Bob, thank you for presenting.

Have a great time in Oklahoma City!