A&WMA MPCA Waste Update

Beneficial Use of Solid Waste
Today’s Presentation

- Beneficial Use Background
- Standing Beneficial Uses
- Case Specific Beneficial Use Determinations
- Demonstration Research Projects
- Contact Information
- Questions
Beneficial Use Background

- Waste Generators Identify Uses
- Saves Landfill Space
- Reduce Disposal Costs
- Some Generate Profit
- Reduces Raw Material Use
- Standing, Case Specific, Demonstration Research Project
Standing Beneficial Uses

- Beneficial Uses written into rule
- 17 Specific materials and specific end uses
- Determined not to be harmful to human health and environment
- Uncontaminated wood and concrete, glass, newspaper, tire chips and shreds, foundry sand, by-product lime, etc.
- No need to contact MPCA
- Interpretation of material and use, a little fuzzy
Standing Beneficial Uses: Tire Shreds
Case Specific Beneficial Use

- CSBUDs cover a wide range of materials and end uses
- Application and approval process
- Cannot store solid waste in anticipation of future markets
- Solid Waste must be an effective substitute for an analogous material
- Does not adversely affect human health and environment
- Must not be used in quantities that exceed accepted engineering standards
- Contaminated wood, wood ash, coal ash, eggshells, shingles, contaminated concrete, foundry sand, spent lime materials
Case Specific Beneficial Use: Ford Plant
Case Specific Beneficial Use:
Foundry Sand
Case Specific Beneficial Use: Foundry Sand

Beneficial Use #3:

Approved SFS waste stream is not a Hazardous Waste and all constituents have concentrations less than Table 2.

Beneficial Use #3 includes use as any of the following:

- Blended with inert materials or with compost and used to manufacture soil
- Decorative stone
- Cold weather abrasive
- Applied to land as a soil amendment

Table 2 - Beneficial Use #3

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Concentrations (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>8</td>
</tr>
<tr>
<td>Cobalt</td>
<td>22</td>
</tr>
<tr>
<td>Iron</td>
<td>160,000</td>
</tr>
</tbody>
</table>
Case Specific Beneficial Use: Egg Shells

Diagram of Eggshell Breaking Process to Transport

- Auger from Separator
- Centrifuge or Screw Press
- Dry Shell Auger
- Hydrated Lime
- Excess Liquid to Inedible Tanks
- Shell Transport Truck

Minnesota Pollution Control Agency
Case Specific Beneficial Use: Egg Shells
Case Specific Beneficial Use?
No; Just a mess
Case Specific Beneficial Use?
No; more than required, Disposal?
Case Specific Beneficial Use?
No; No Engineering Purpose
Demonstration Research Projects

- Limited-scale projects
- Promote new or improved methods of Solid Waste management
- Gather information and data
- May be required before a CSBUD
- DRP’s do not have to be Beneficial Reuse
- More rigorous application process
CSBUD/DRP: Shingle Reuse
CSBUD/DRP: Shingle Reuse
Contact information

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Questions