ASTSWMO’s Bioreactor Landfill Work Group
A Multiple State Regulatory Perspective

US EPA Work Shop on Bioreactor Landfills
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By: Robert J. Phaneuf
New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials

On Behalf of:

Association of State and Territorial
Solid Waste Management Officials
ASTSWMO’s Bioreactor Landfill Work Group

- States Represented: CA, DE, KY, NY, TN, VT, VA, and WI.
- Develop comments on behalf of ASTSWMO in response to US EPA’s April 6, 2000 request for information on bioreactor landfills.
- Track US EPA progress developing regulations and guidance on bioreactor landfills.
ASTSWMO’s Bioreactor Landfill Work Group
Where the Work Group Stands on Bioreactor Landfills

- Recognize the merits of bioreactor LF concepts:
  - Optimizes waste compaction and increases waste density.
  - Conserves disposal capacity and land resources.
  - Reduces volume of leachate and pollution potential of leachate.
  - Enhances LF gas quality and potential for energy recovery.
  - Minimizes long-term pollution potential of the waste in landfills.

- Decision to conduct bioreactor operation is up to the LF owner and should not be a regulatory mandate.
  - LF owner should request State approval to conduct bioreactor landfill.
  - Bioreactor proposals need to be evaluated on site specific basis.
  - Some LFs may not be allowed to conduct bioreactor operations based on site specific conditions and State evaluations.
Consider bioreactor LF as an alternative LF operational option.

- Maintain liner, operational compliance and FA requirements.
- Post-closure monitoring time frame reductions need to consider site specific data generated by the bioreactor operation.

Should be conducted only at properly lined LF as approved by the State.

- More data needs to be collected prior to bioreactor concepts being used at old unlined landfills.
• Federal regulatory flexibility needs to be imparted to individual states to maximize bioreactor operation benefits:
  ✓ bioreactor landfill operation approvals,
  ✓ specifying minimum liner design for bioreactor landfills,
  ✓ State approval to recirculate bulk aqueous liquids other than leachate in a bioreactor landfill needs to be made at the state level.
  ✓ proposed RD&D regs will be an integral component for regulatory flexibility regarding MSW landfill regulatory requirements.

• Recommends that federal technical guidance on bioreactor landfill concepts and post-closure monitoring is needed.
Modern Landfill Concepts
Bioreactor Landfill Concepts
Thank you for listening.
RD&D Permit Considerations for State Regulators

- RD&D evaluations should be conducted on a case-by-case basis:
  - Must demonstrate why compliance is not appropriate or that benefits/improvements can not be attained otherwise under current regs.
  - Has anything similar been proposed? If so, how is the proposal different?
- Demonstrate no adverse impacts on public health, safety or welfare, the environment, and natural resources.
- Define project scope:
  - Project Size – can allow for full or limited scale demonstrations.
  - Time Frame – can not be of a continuing nature, maximum duration is 12 years.
- RD&D proposals may be subject to:
  - Increased performance monitoring & inspections;
  - Additional reporting; and
  - Special permit conditions.