Intermediate Closure Considerations

Active Gas Collection Systems

Active gas collection systems have been used to effectively control odors and emissions at conventional landfills.

Such designs at bioreactor landfills will likely need to be more robust to work effectively.
Intermediate Closure Considerations
Permitting Issues

State regulators will need to look at the way that we currently permit landfills – typically permit is issued for a fixed capacity of waste that is to be received.

Progressive Capping Considerations?
Financial Assurance Considerations?
Intermediate Closure Considerations
Sustainable Landfill Concepts

Bioreactor Landfill Movement may end up promoting a Sustainable Landfill Operation concept.

Current trend in NYS is that most of the State’s new SW disposal capacity is coming from expansions of the existing 27 active MSW landfills - all of which are double lined.
Notice to Landfill Owners/Operators:

Bioreactor Landfill Operations Need State Approval!

Required that all leachate recirculation or bioreactor proposals address in detail:

- Geotechnical Analysis
- Air Emission & Odor Control
- Leachate Mngt System Maintenance Plan
- Details for Leachate Induction - How & How Much & When
- Operations Plan
- Bioreactor Landfill Monitoring Plan

Sent to all 27 MSW Lfs in NYS Stressing need for Dept Approval
How Well Are NYS’s Double-Lined Landfill Designs Working?

From 2001 Annual Reports (data on 29 Landfills)

Primary LCRS Flows:
Max: 6909 gpad; Min: 84 gpad; Mean: 1088 gpad

Secondary LCRS Flows:
Max: 87 gpad; Min: 0.5 gpad; Mean: 8.3 gpad

“Upper” Liner System Efficiency:
Max: 99.97%; Min: 94.5%; Mean: 98.8%
Do we have enough leachate in NYS?

**Bioreactor Landfills Require:**

- Optimum Waste MC 40-70%  
- Or, typically 25-50 gallons of added moisture needed per ton of waste.

In 2000 - 27 MSW landfills in NYS accepted 9.3 million tons of SW.

In general if all these landfills wanted conduct bioreactor operations we’d need between 232 million and 465 million gallons of leachate.

In 2000 - 27 MSW landfills generated just over 440 million gallons of leachate.

Individual landfill demonstration of need for additional moisture needs to be conducted.